

Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Driver, CO 80127

November 21, 2008

Mrs. Diana Mason Division of Oil, Gas and Mining P.O. Box 145801 Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11
NBU 1022-25G3S
T10S R22E
Section 25: SWNE
SWNE, 1765' FNL, 1482' FEL (surface)
SWNE, 2250' FNL, 2065' FEL (bottom hole)
Uintah County, Utah

Dear Mrs. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to the Exception to Location and Siting of Wells.

- Kerr-McGee's NBU 1022-25G3S is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore (State lease UT ST ML 22447).

Therefore, based on the above stated information Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

James C. Colligan III

Landman

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DIV. OF OIL, GAS & MINING

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

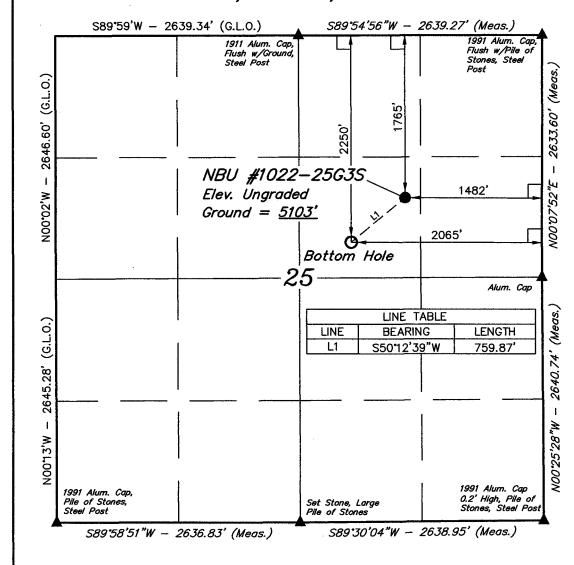
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AMENDED REPORT (highlight changes)

	APPLICA"	TION FOR	PERMIT TO	DRILL	1	L LEASE NO: 22447	6. SURFACE: State
1A. TYPE OF WO	DRILL 🔽	REENTER [	DEEPEN		7. IF INDIA N/A	N, ALLOTTEE OR T	RIBE NAME:
B. TYPE OF WE	ll: OIL 🗌 GAS 🗹	OTHER	SIN	GLE ZONE MULTIPLE ZON	8. UNIT or	CA AGREEMENT N	AME:
2. NAME OF OPE		ח				AME and NUMBER:	
3. ADDRESS OF	e Oil & Gas Onshore, L	<u>.</u>		PHONE NUMBER:		1022-25G3S AND POOL, OR WIL	DCAT:
P.O. Box 1		er <sub>sta</sub>	TE CO ZIP 802	217-3779 (720) 929-6226	1	al Buttes Fie	
4. LOCATION OF	WELL (FOOTAGES) 638/53)	C 4420177	Y 39. 922.	320 - 109.383 431	11. QTR/Q MERIDI	TR, SECTION, TOW AN:	NSHIP, RANGE,
				109.383517 (NAD 27)	SWNE	25 10S	22E
AT PROPOSED	PRODUCING ZONE: SWNE !	2250' FNL & 2 # 20024\	2065' FEL, Se 1 39.92	c. 25, T10S, R22E 69 <i>7.3 -\09.385505</i>			
14. DISTANCE IN	MILES AND DIRECTION FROM NEA	REST TOWN OR PO	ST OFFICE:		12. COUNT	IY:	13. STATE: UTAH
35.3 mile	s northeast of Ouray, L	ltah			Uintah	1	UIAN
15. DISTANCE TO	NEAREST PROPERTY OR LEASE	LINE (FEET)	16. NUMBER O	FACRES IN LEASE:	17. NUMBER OF A	ACRES ASSIGNED	O THIS WELL:
1482'				640			Unit Well
	O NEAREST WELL (DRILLING, COMI R) ON THIS LEASE (FEET)	DEPTH:	20. BOND DESCR	IPTION:			
20'	<u> </u>			7,744 ATE DATE WORK WILL START:	22013542		·····
	G (SHOW WHETHER DF, RT, GR, ET	23. ESTIMATED D	URATION:				
5103'					10 days		
24.		PROPOS	ED CASING A	ND CEMENTING PROGRAM			
SIZE OF HOLE	CASING SIZE, GRADE, AND WEI	GHT PER FOOT	SETTING DEPTH	CEMENT TYPE, QU	ANTITY, YIELD, AND		
12.25	9.625 J-55	36	4,000	Premium Cement	215	1.18	15.6
				Premium Cement	50	1.18	15.6
7.875	4.5 I-80	11.6	7,744	Premium Lite II	280	3.38	11.0
				50/50 Poz G	1180	1.31	14.3
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25.			ATTA	CHMENTS			
VERIFY THE FOI	LOWING ARE ATTACHED IN ACCO	RDANCE WITH THE I	UTAH OIL AND GAS C	ONSERVATION GENERAL RULES:			
<b>✓</b> WELL PL	AT OR MAP PREPARED BY LICENS		"	COMPLETE DRILLING PLAN			
VVELL PL	AT OR MAP PREPARED BY LICENS	ED SURVETUR UR E	INGINEER	1 =			
<b>✓</b> EVIDENC	CE OF DIVISION OF WATER RIGHTS	APPROVAL FOR US	E OF WATER	FORM 5, IF OPERATOR IS PE	RSON OR COMPAN	Y OTHER THAN TH	E LEASE OWNER
NAME (DI EASE	PRINT) Kevin McIntyre			TITLE Regulatory An	alyst		
MANUE (FLEAGE	/ · 11-			DATE 11/13/2008			
SIGNATURE	1-10			DATE 11/10/2000			
(This space for Sta	tte use only)				2	BECEI	\ <i>/r</i> -r>
	. ž. a.				Λ 	RECE	
API NUMBER AS	SIGNED: 43-047-40	443	<u></u>	APPROVAL:	t	DEC 0 1	2008

DIV. OF OIL, GAS & MINING

### T10S, R22E, S.L.B.&M.



#### LEGEND:

\_ = 90° SYMBOL

PROPOSED WELL HEAD.

= SECTION CORNERS LOCATED.

# NAD 83 (TARGET BOTTOM HOLE) NAD 83 (SURFACE LOCATION) LATITUDE 39\*55'15.27" (39.920908) LATITUDE 39\*55'20.07" (39.922242) LONGITUDE 109\*23'10.61" (109.386281) LONGITUDE 109\*23'03.11" (109.384197) NAD 27 (TARGET BOTTOM HOLE) NAD 27 (SURFACE LOCATION) LATITUDE 39\*55'15.39" (39.920942) LATITUDE 39\*55'20.19" (39.922275) LONGITUDE 109\*23'08.16" (109.383500) LONGITUDE 109\*23'00.66" (109.383517)

#### Kerr-McGee Oil & Gas Onshore LP

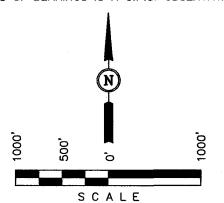
Well location, NBU #1022-25G3S, located as shown in the SW 1/4 NE 1/4 of Section 25, T10S, R22E, S.L.B.&M., Uintah County, Utah.

#### BASIS OF ELEVATION

TWO WATER TRIANGULATION STATION LOCATED IN THE NW 1/4 OF SECTION 1, T10S, R21E, S.L.B.&M., TAKEN FROM THE BIG PACK MTN NE, QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5238 FEET.

#### BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.



CERTIFICATE

LAND

THIS IS TO CERTIFY THAT THE ABOVE PART WAS PREPARED FROM
FIELD NOTES OF ACTUAL SURVEYS MAN BY ME OR UNDER MY?

SUPERVISION AND THAT THE SAME AN TRUE AND PERFERD OF
BEST OF MY KNOWLEDGE AND BELIEF

REGISTRED LAND SURVEYOR REGISTRE OF TAMPIE OF

Gas Onshore LP

# UINTAH ENGINEERING & LAND SURVEYING 85 SOUTH 200 EAST - VERNAL, UTAH 84078 (435) 789-1017

HOT

#### NBU 1022-25G3S

Pad: NBU 1022-25G

Surface: 1,765' FNL, 1,482' FEL (SW/4NE/4) BHL: 2,250' FNL 2,065' FEL (SW/4NE/4)

Sec. 25 T10S R22E

Uintah, Utah Mineral Lease: ML 22447

#### ONSHORE ORDER NO. 1

#### DRILLING PROGRAM

## 1.-2. Estimated Tops of Important Geologic Markers: Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

<u>Formation</u>	<u>Depth</u>	Resource	
Uinta	0 – Surface		
Green River	423'		
Birds Nest	838'	Water	
Mahogany	1,246'	Water	
Wasatch	3,453'	Gas	
Mesaverde	5,541'	Gas	
MVU2	6,411'	Gas	
MVL1	7,124'	Gas	
TVD	7,600'		
TD	7,744'		

#### 3. <u>Pressure Control Equipment</u> (Schematic Attached)

Please refer to the attached Drilling Program.

#### 4. Proposed Casing & Cementing Program:

Please refer to the attached Drilling Program.

#### 5. <u>Drilling Fluids Program</u>:

Please refer to the attached Drilling Program.

#### 6. Evaluation Program:

Please refer to the attached Drilling Program.

#### 7. Abnormal Conditions:

Maximum anticipated bottomhole pressure calculated at 7,744° TD, approximately equals 4,423 psi (calculated at 0.57 psi/foot).

Maximum anticipated surface pressure equals approximately 2,668 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

#### 8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

#### 9. Variances:

Please refer to the attached Drilling Program.

Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- Blowout Prevention Equipment (BOPE) requirements;
- Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

#### Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12-1/4 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 9-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

#### Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

#### Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements
Onshore Order 2 requires specific safety distances or setbacks for the placement of
associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to
drill the surface holes are not typical of an air rig used to drill a producing hole in other
parts of the US. These are smaller in nature and designed to fit a KMG location. The typical
air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

#### Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

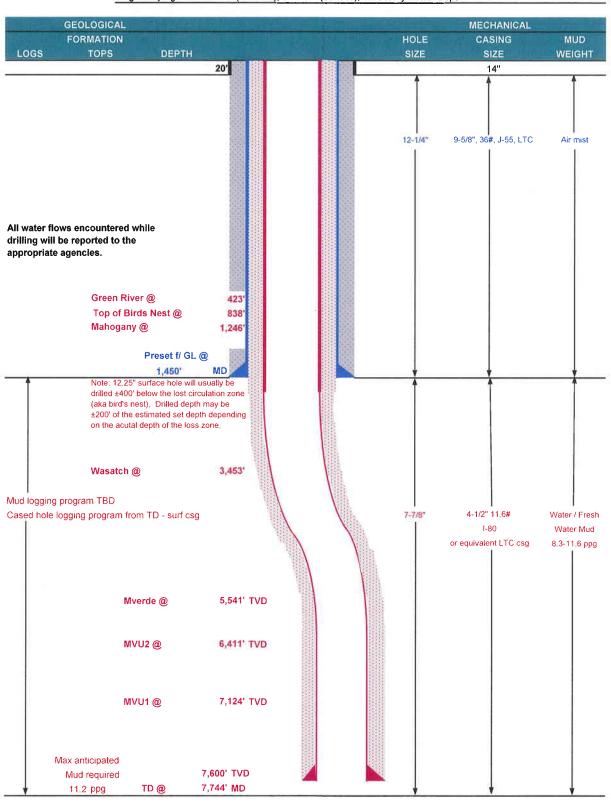
#### 10. Other Information:

Please refer to the attached Drilling Program.



## KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME KERR-McGEE OIL & GAS ONSHORE LP April 7, 2009 NBU 1022-25G3S WELL NAME 7,600' 7,744' MD **FIELD** Natural Buttes **COUNTY Uintah** STATE Utah **ELEVATION** 5,103' GL KB 5,118' SURFACE LOCATION SW/4 NE/4 1,765' FNL T 10S R 22E 1,482' FEL Sec 25 39.922275 -109.383517 **NAD 27** Latitude: Longitude: SW/4 NE/4 2,250' FNL T 10S **BTM HOLE LOCATION** 2,065' FEL Sec 25 R 22E -109.385600 **NAD 27** Latitude: 39.920942 Longitude: OBJECTIVE ZONE(S) Wasatch/Mesaverde ADDITIONAL INFO Regulatory Agencies: SITLA (Minerals), UDOGM (Surface), Tri-County Health Dept.





#### KERR-McGEE OIL & GAS ONSHORE LP **DRILLING PROGRAM**

#### **CASING PROGRAM**

						DESIGN FACTORS				
	SIZE	INTERVAL		WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION	
CONDUCTOR	14"		0-40'							
								3520	2020	453000
SURFACE	9-5/8"	0	to	1,450'	36.00	J-55	LTC	1.25	2.98	11.05
								7,780	6,350	201,000
PRODUCTION	4-1/2"	0	to	7,744'	11.60	1-80	LTC	2.77	1.41	2.56

- 1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))
- 2) MASP (Prod Casing) = Pore Pressure at TD (0.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD =

11.2

ppg)

0.22 psi/ft = gradient for partially evac wellbore

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

**MASP** 2,668 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

(Burst Assumptions: TD =

11.2 ppg)

0.57 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing\*Buoy Fact. of water)

4,423 psi **MABHP** 

#### CEMENT PROGRAM

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD				
SURFACE LEAD	500	Premium cmt + 2% CaCl	215	60%	15.60	1.18				
Option 1		+ 25 pps flocele								
TOP OUT CMT (1)	200	20 gals sodium silicate + Premium cmt	50		15.60	1.18				
		+ 2% CaCl + .25 pps flocele								
TOP OUT CMT (2)	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18				
SURFACE	NOTE: If well will circulate water to surface, option 2 will be utilized									
Option 2 LEAD	1500	65/35 Poz + 6% Gel + 10 pps gilsonite	360	35%	12.60	1.81				
		+ 25 pps Flocele + 3% salt BWOW								
TAIL	500	Premium cmt + 2% CaCl	180	35%	15.60	1.18				
		+ .25 pps flocele								
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18				
PRODUCTION LEAD	2,944'	Premium Lite II + 3% KCI + 0.25 pps	280	40%	11.00	3.38				
		celloflake + 5 pps gilsonite + 10% gel								
		+ 0.5% extender								
TAIL	4,800'	50/50 Poz/G + 10% salt + 2% gel	1180	40%	14.30	1.31				
		+.1% R-3								

<sup>\*</sup>Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

#### FLOAT EQUIPMENT & CENTRALIZERS

SURFACE

Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe

**PRODUCTION** 

Float shoe, 1 jt, float collar. No centralizers will be used.

#### ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet, Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys w	ill he taken	at 1 0000	minimum	intervals

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING I	ENGINEER:
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John Huycke / Grant Schluender

DATE:

DATE:

DRILLING SUPERINTENDENT:

John Merkel / Lovel Young

<sup>\*</sup>Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

#### NBU 1022-25G3S SWNE SEC. 25, T10S, R22E UINTAH COUNTY, UTAH ST ML 22447

#### **ONSHORE ORDER NO. 1**

#### MULTI-POINT SURFACE USE & OPERATIONS PLAN

#### **Directional Drilling:**

In accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, this well will be directionally drilled in order to access portions of our lease which are otherwise inaccessible due to topography.

#### 1. Existing Roads:

Refer to Topo Map A for directions to the location.

Refer to Topo Maps A and B for location of access roads within a 2-mile radius.

Refer to Topo Maps A and B for location of access roads within a 2 mile radius.

All existing roads will be maintained and kept in good repair during all drilling and completion operations associated with this well.

#### 2. Planned Access Roads:

Approximately 150' +/- of new access road is proposed. Please refer to the attached Topo Map B.

The upgraded and new portions of the access road will be crowned and ditched with a running surface of 18 feet and a maximum disturbed width of 30 feet. Appropriate water control will be installed to control erosion.

Existence of pipelines; maximum grade; turnouts; major cut and fills, culverts, or bridges; gates, cattle guards, fence cuts, or modifications to existing facilities were determined at the on-site.

The access road was centerline flagged during time of staking.

Surfacing material may be necessary, depending upon weather conditions.

Surface disturbance and vehicular traffic will be limited to the approved location and approved access route. Any additional area needed will be approved in advance.

#### 3. <u>Location of Existing Wells Within a 1-Mile Radius</u>:

Please refer to Topo Map C.

#### 4. <u>Location of Existing & Proposed Facilities</u>:

The following guidelines will apply if the well is productive.

All production facilities will be located on the disturbed portion of the well pad and at a minimum of 25 feet from the toe of the back slope or the top of the fill slope.

A dike will be constructed completely around those production facilities which contain fluids (i.e., production tanks, produced water tanks, and/or heater/treater). These dikes will be constructed of compacted subsoil, be impervious, hold 100% of the capacity of the largest tank, and be independent of the back cut.

All permanent (on-site six months or longer) above the ground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earthtone color to match one of the standard environmental colors, as determined by the five state Rocky Mountain Inter-Agency Committee.

All facilities will be painted within six months of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) will be excluded. The required color is Shadow Gray, a non-reflective earthtone.

Any necessary pits will be properly fenced to protect livestock and prevent wildlife entry.

Approximately 147' of 4" pipeline is proposed. Refer to Topo D for the proposed pipeline.

#### 5. Location and Type of Water Supply:

Water for drilling purposes will be obtained from Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32, T4S, R3E, Water User Claim #43-8496, Application #53617.

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

#### 6. Source of Construction Materials:

Surface and subsoil materials in the immediate area will be utilized.

Any gravel will be obtained from a commercial source.

#### 7. Methods of Handling Waste Materials:

Drill cuttings will be contained and buried in the reserve pit.

Drilling fluids, including salts and chemicals, will be contained in the reserve pit. Upon termination of drilling and completion operations, the liquid contents of the reserve pit will be removed and disposed of at an approved waste disposal facility within 120 days after drilling is terminated.

The reserve pit will be constructed on the location and will not be located within natural drainage, where a flood hazard exists or surface runoff will destroy or damage the pit

walls. The reserve pit will be constructed so that it will not leak, break, or allow discharge of liquids.

A plastic reinforced liner and felt will be used, it will be a minimum of 20 mil thick, with sufficient bedding used to cover any rocks. The liner will overlap the pit walls and be covered with

dirt and/or rocks to hold it in place. No trash or scrap that could puncture the liner will be disposed of in the pit.

Any spills of oil, gas, salt water, or other noxious fluids will be immediately cleaned up and removed to an approved disposal site.

A chemical porta-toilet will be furnished with the drilling rig.

Garbage, trash, and other waste materials will be collected in a portable, self-contained, fully enclosed trash cage during operations. No trash will be burned on location.

All debris and other waste material not contained in the trash cage will be cleaned up and removed from the location immediately after removal of the drilling rig.

Any open pits will be fenced during the operations. The fencing will be maintained until such time as the pits are backfilled.

No chemicals subject to reporting under SARA Title III (hazardous materials) in an amount greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling of this well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported, or disposed of in association with the drilling of this well.

Any produced water from the proposed well will be contained in a water tank and will then be hauled By truck to one of the pre-approved disposal sites: RNI, Sec. 5, T9S, R22E, NBU #159, Sec. 35, T9S, R21E, Ace Oilfield, Sec. 2, T6S, R20E, MC&MC, Sec. 12, T6S, R19E, Pipeline Facility, Sec. 36, T9S, R20E, Goat Pasture Evaporation Pond, SW/4 Sec. 16, T10S, R22E, Bonanza Evaporation Pond, Sec. 2, T10S, R23E.

#### 8. Ancillary Facilities:

None are anticipated.

#### 9. Well Site Layout: (See Location Layout Diagram)

The attached Location Layout Diagram describes drill pad cross-sections, cuts and fills, and locations of the mud tanks, reserve pit, flare pit, pipe racks, trailer parking, spoil dirt stockpile(s), and surface material stockpile(s).

Please see the attached diagram to describe rig orientation, parking areas, and access roads.

The reserve pit will be lined, and when the reserve pit is closed, the pit liner will be buried below plow depth.

All pits will be fenced according to the following minimum standards:

39 inch net wire will be used with at least one strand of barbed wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.

The net wire shall be no more than two inches above the ground. The barbed wire shall be three inches over the net wire. Total height of the fence shall be at least 42 inches.

Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.

Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance

between any 2 fence posts shall be no greater than 16 feet.

All wire shall be stretched, by using a stretching device, before it is attached to corner posts.

The reserve pit fencing will be on three sides during drilling operations, and on the fourth side when the rig moves off location. Pits will be fenced and maintained until cleanup.

Location size may change prior to the drilling of the well due to current rig availability. If the proposed location is not large enough to accommodate the drilling rig the location will be re-surveyed and a Form 9 shall be submitted.

#### 10. Plans for Reclamation of the Surface:

Producing Location:

Immediately upon well completion, the location and surrounding area will be cleared of all unused tubing, materials, trash, and debris not required for production.

Immediately upon well completion, any hydrocarbons in the pit shall be removed in accordance with 43 CFR 3162.7-1.

A plastic, nylon reinforced liner will be used, it shall be torn and perforated before backfilling of the reserve pit.

Before any dirt work associated with location restoration takes place, the reserve pit shall be as dry as possible. All debris in it will be removed. Other waste and spoil materials will be disposed of immediately upon completion of operations.

The reserve pit and that portion of the location not needed for production facilities/operations will be recontoured to the approximate natural contours. The reserve pit will be reclaimed within 90 days from the date of well completion, weather permitting.

To prevent surface water (s) from standing (ponding) on the reclaimed reserve pit area, final reclamation of the reserve pit will consist of "mounding" the surface three feet above surrounding ground surface to allow the reclaimed pit area to drain effectively.

Upon completion of backfilling, leveling, and recontouring, the stockpiled topsoil will be spread evenly over the reclaimed area(s).

Dry Hole/Abandoned Location:

Abandoned well sites, roads, and other disturbed areas will be restored as near as practical to their original condition. Where applicable, these conditions include the re-establishment of irrigation systems, the re-establishment of appropriate soil conditions, and re-establishment of vegetation as specified.

All disturbed surfaces will be recontoured to the approximate natural contours, with reclamation of the well pad and access road to be performed as soon as practical after final abandonment. Reseeding operations will be performed after completion of other reclamation operations.

#### 11. <u>Surface/Mineral Ownership:</u>

SITLA 675 East 500 South, Suite 500 Salt Lake City, UT 84102

#### 12. Other Information:

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, the approved Plan of Operations, and any applicable Notice of Lessees. The Operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished to the field representative to ensure compliance.

The Operator will control noxious weeds along Rights-Of-Way for roads, pipelines, well sites, or other applicable facilities.

A Class III archaeological survey will be submitted when report becomes available.

This location is not within 460' from the boundary of the Natural Buttes Unit, nor is it within 460' of any non-committed tract lying within the boundaries of the Unit.

#### 13. Lessee's or Operators's Representative & Certification:

Kevin McIntyre Regulatory Analyst Kerr-McGee Oil & Gas Onshore LP P.O. Box 173779 Denver, CO 80217-3779 (720) 929-6226 Randy Bayne Drilling Manager Kerr-McGee Oil & Gas Onshore LP 1368 South 1200 East Vernal, UT 84078 (435)781-7018 Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by State Surety Bond 22013542.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed by the Operator, its contractors, and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Kevin McIntyre 11/13/2008

Date

## Kerr-McGee Oil & Gas Onshore LP NBU #1022-25G, #1022-25G2S, #1022-25G3S & #1022-25G4S SECTION 25, T10S, R22E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 14.0 MILES TO THE JUNCTION OF STATE HIGHWAY 88: EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 17.0 MILES TO OURAY, UTAH; PROCEED IN A SOUTHERLY, THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 11.2 MILES ON THE SEEP RIDGE ROAD TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST: TURN LEFT AND PROCEED IN AN EASTERLY, THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 9.6 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY, THEN NORTHEASTERLY DIRECTION APPROXIMATELY 2.6 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; TURN RIGHT AND PROCEED IN A NORTHEASTERLY, THEN SOUTHRELY DIRECTION APPROXIMATELY 0.7 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST: TURN LEFT AND PROCEED IN SOUTHEASTERLY, THEN NORTHWESTERLY DIRECTION APPROXIMATELY 1.3 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTH; TURN RIGHT AND PROCEED IN A SOUTHERLY, THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 4.4 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; TURN LEFT AND PROCEED IN A NORTHEASTERLY DIRECTION APPROXIMATELY 1.2 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHWEST; TURN LEFT AND PROCEED IN A NORTHWESTERLY, THEN NORTHERLY DIRECTION APPROXIMATELY 3.2 MILES TO THE #2D-36 AND AN EXISTING ROAD TO THE NORTH; TURN LEFT AND PROCEED IN A NORTHERLY DIRECTION APPROXIMATELY 1.1 MILES TO THE BEGINNING OF THE PROPOSED ACCESS TO THE WEST: FOLLOW ROAD FLAGS IN A WESTERLY DIRECTION APPROXIMATELY 150' TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 66.3 MILES.

## Kerr-McGee Oil & Gas Onshore LP

NBU #1022-25G, #1022-25G2S, #1022-25G3S & #1022-25G4S LOCATED IN UINTAH COUNTY, UTAH

SECTION 25, T10S, R22E, S.L.B.&M.

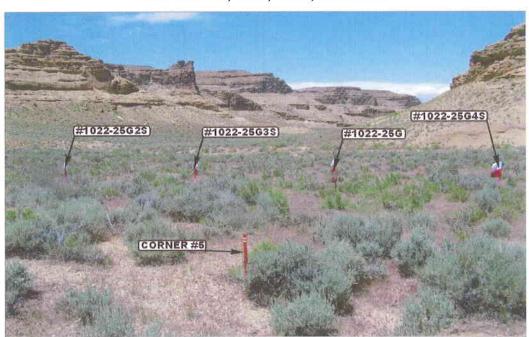


PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKE

CAMERA ANGLE: NORTHERLY

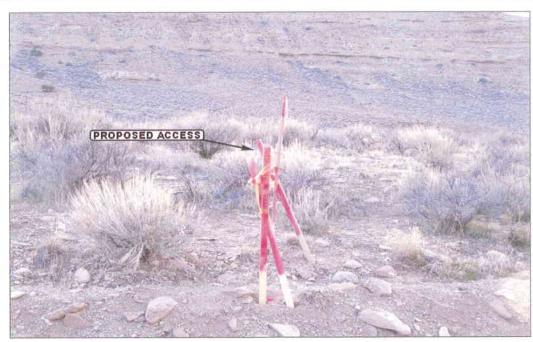


PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS

CAMERA ANGLE: SOUTHWESTERLY



Uintah Engineering & Land Surveying 85 South 200 East Vernal, Utah 84078 (435) 789-1017 \* FAX (435) 789-1813

LOCATION PHOTOS

12 05 06 MONTH DAY YEAR

PHOTO

TAKEN BY: L.K. DRAWN BY: C.P. REV: 08-27-08 J.J.

**Kerr-McGee Oil & Gas Onshore LP**NBU #1022-25G, #1022-25G2S, #1022-25G3S & #1022-25G4S
PIPELINE ALIGNMENT

LOCATED IN UINTAH COUNTY, UTAH SECTION 25, T10S, R22E, S.L.B.&M.

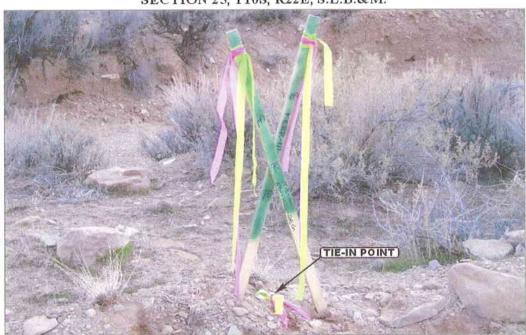


PHOTO: VIEW FROM TIE-IN POINT

CAMERA ANGLE: SOUTHWESTERLY

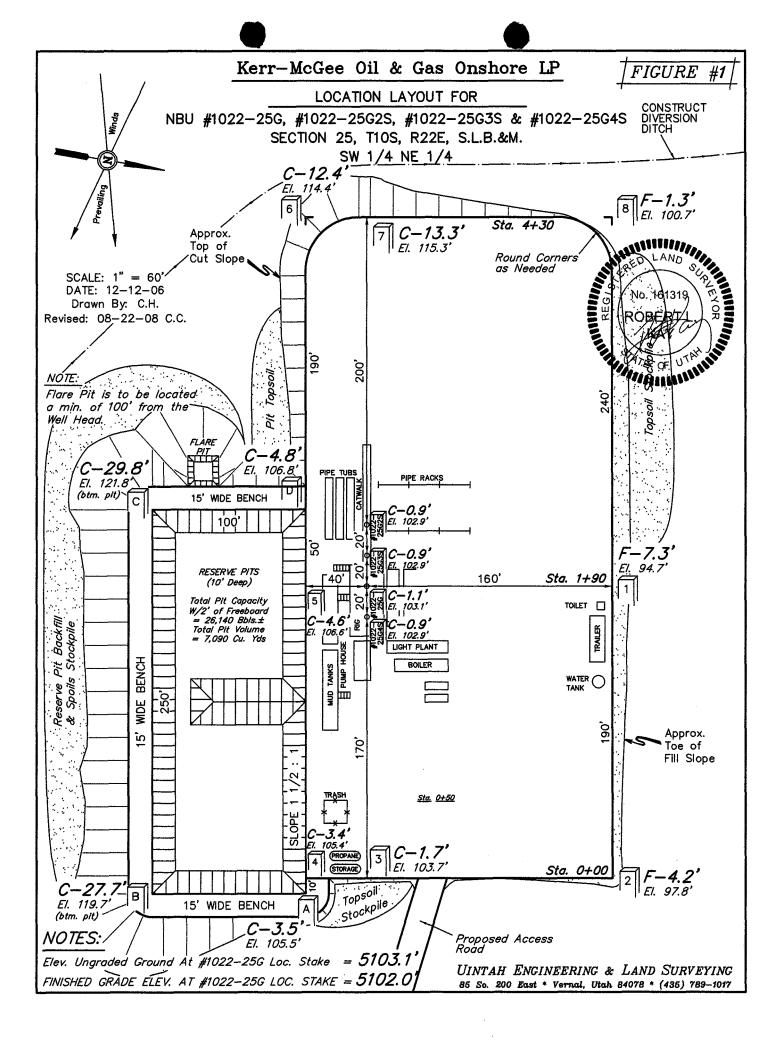


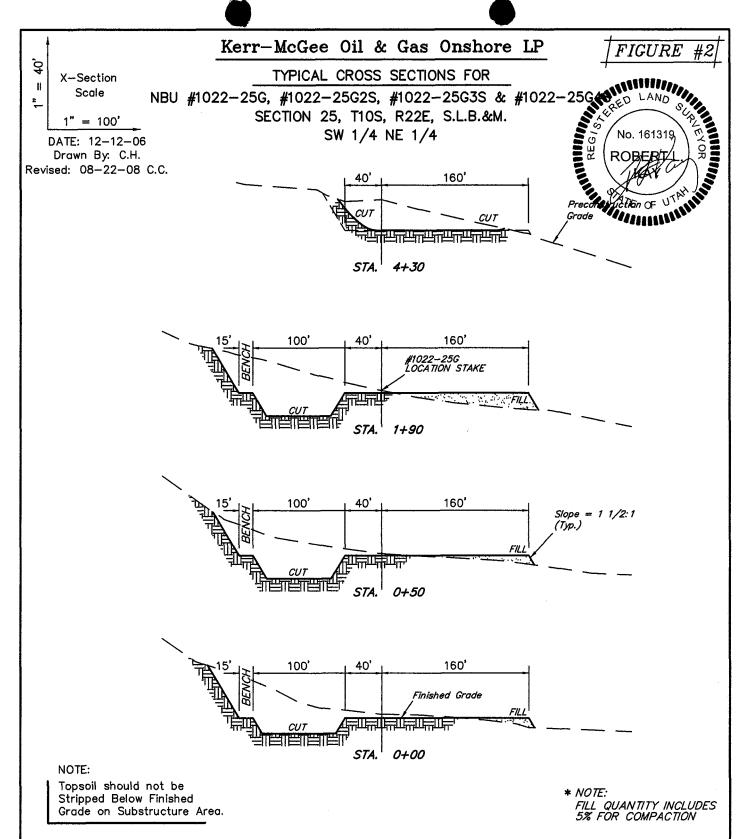
PHOTO: VIEW OF PIPELINE ALIGNMENT

CAMERA ANGLE: SOUTHWESTERLY



	40 11 - 4				
PIPELINE	12 MONTH	05 DAY	06 YEAR	рното	
TAKEN BY: L.K.	DRAWN BY: C.P	. RE	V: 08-27	-08 J.J.	





#### APPROXIMATE YARDAGES

(6") Topsoil Stripping = 2,780 Cu. Yds. Remaining Location = 26,680 Cu. Yds.

TOTAL CUT = 29,460 CU.YDS.

FILL = 7,510 CU.YDS.

EXCESS MATERIAL

= 21,950 Cu. Yds.

Topsoil & Pit Backfill

= *6,330* Cu. Yds.

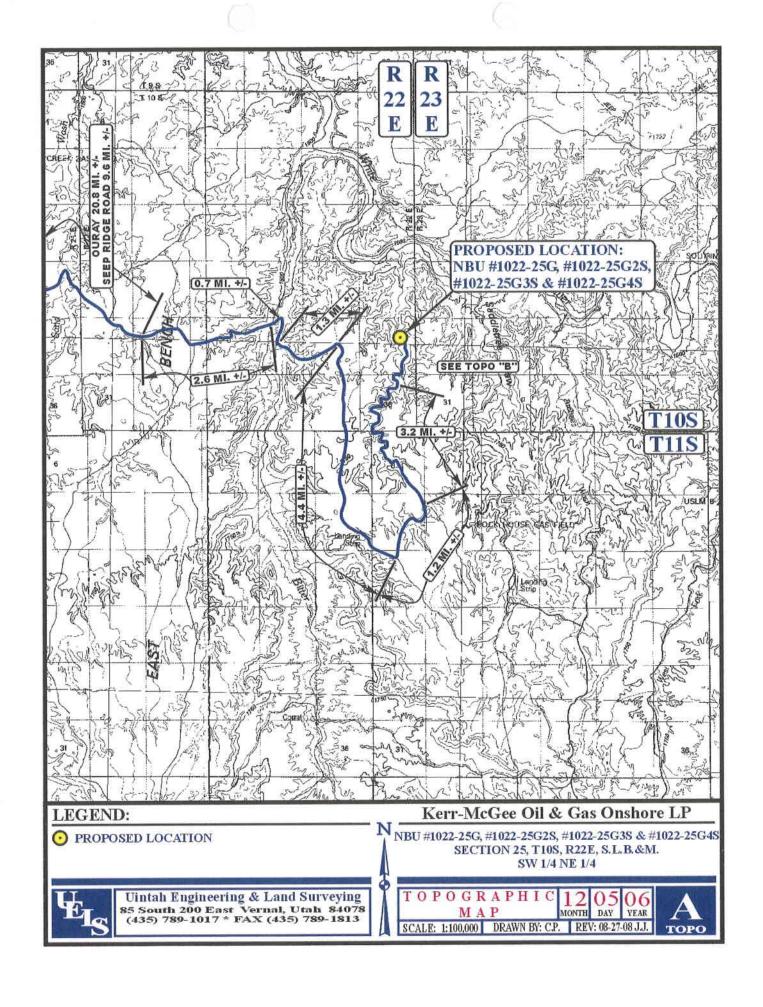
(1/2 Pit Vol.)

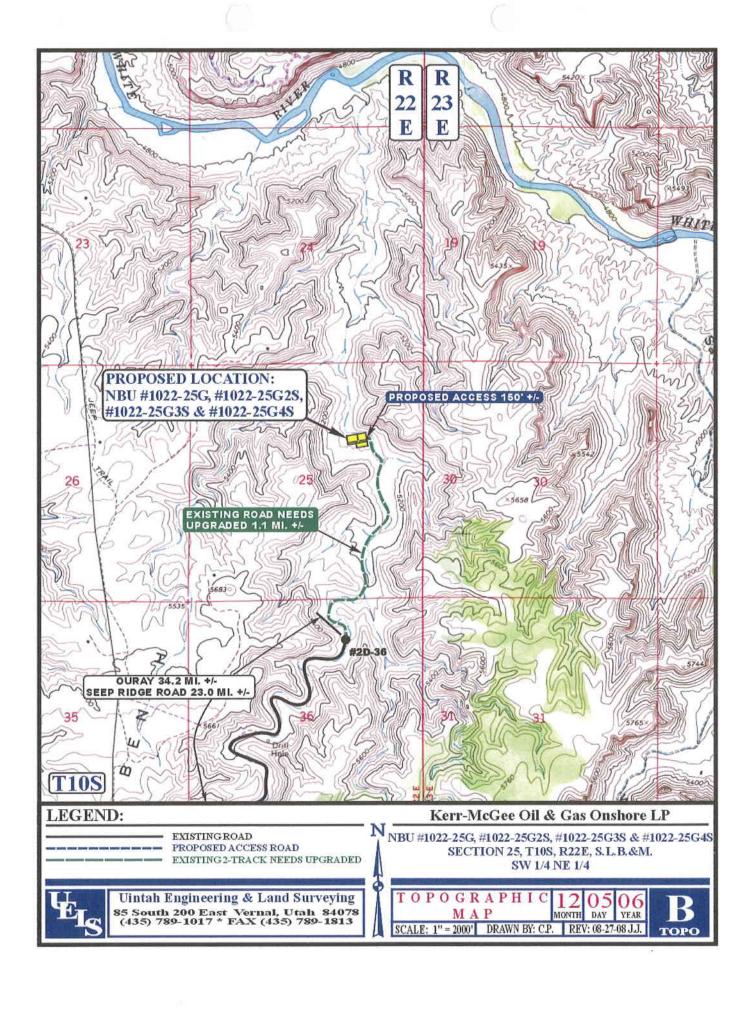
EXCESS UNBALANCE

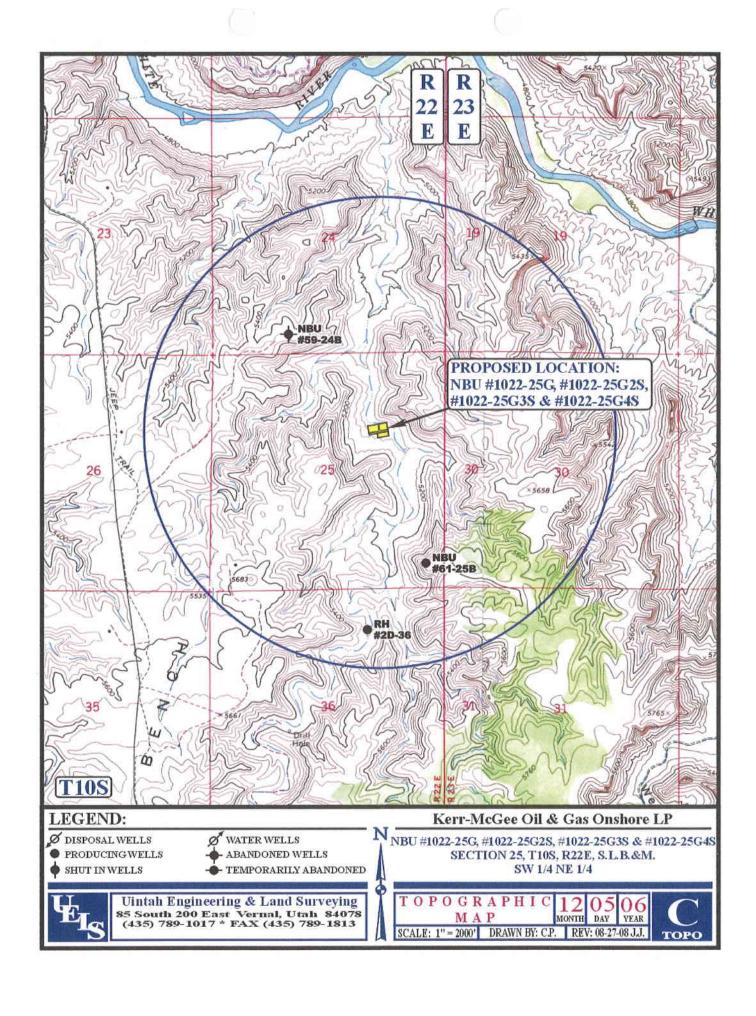
= *15,620* Cu. Yds.

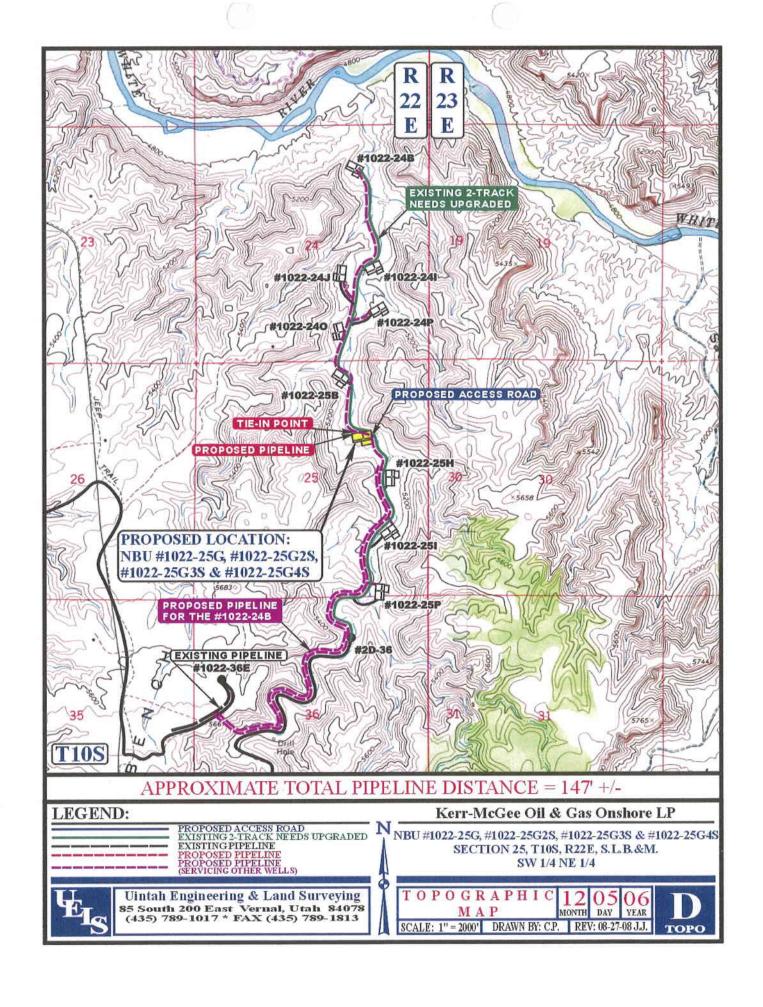
(After Interim Rehabilitation)

UINTAH ENGINEERING & LAND SURVEYING 85 So. 200 East \* Vernal, Utah 84078 \* (485) 789-1017











Project: Uintah County, UT NAD27

Site: NBU 1022-25G Pad

Well: NBU 1022-25G3S

Wellbore: OH Design: Plan #1

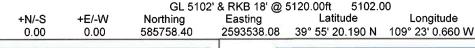
#### ' McGee Oil and Gas Onshore LP

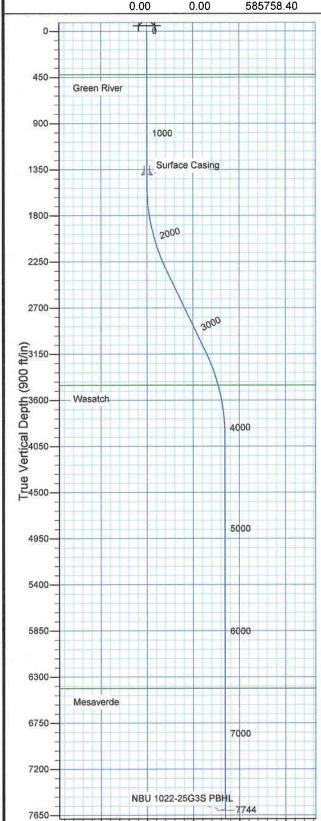
M Azimuths to True North
Magnetic North: 11.34°

Magnetic Field
Strength: 52590.2snT
Dip Angle: 65.90°
Date: 10/21/2008

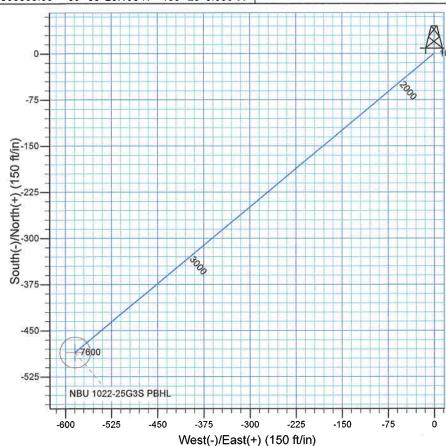
Model: IGRF2005-10

#### WELL DETAILS: NBU 1022-25G3S





-450 0 450 900 138 Vertical Section at 230.27° (900 ft/in)



Plan: Plan #1 (NBU 1022-25G3S/OH)

Created By: Julie Cruse Date: 2008-11-03

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: Sec 25 T10S R22E

Location: Sec 25 T10S R22E System Datum: Mean Sea Level Local North: True

#### SECTION DETAILS

+E/-W DLeg 0.00 0.00 +N/-S **TFace** Target 0.00 0.00 0.00 0.00 0.00 0.00 0.00 1500.00 0.00 0.00 1500.00 0.00 0.00 2353.88 25.62 230.27 2325.72 -119.99 -144.37 3.00 230,27 187,72 3242 82 25 62 230 27 3127 28 -365 65 -439.94 4096 70 0.00 0.00 3953.00 -485.64 -584.30 0.00 0.00 572.05 3.00 180.00 759.77 7743.70 0.00 0.00 7600.00 -485.64 -584.30 0.00 0.00 759,77 NBU 1022-25G3S PBHL



# **Kerr McGee Oil and Gas Onshore LP**

Uintah County, UT NAD27 NBU 1022-25G Pad NBU 1022-25G3S OH

Plan: Plan #1

## **Standard Planning Report**

03 November, 2008



#### Scientific Drilling

#### Planning Report

Database:

EDM 2003.16 Multi User DB

Company:

Kerr McGee Oil and Gas Onshore LP

Project:

Uintah County, UT NAD27

Site: Well: NBU 1022-25G Pad NBU 1022-25G3S

Wellbore: Design:

ОН Plan #1 Local Co-ordinate Reference:

Survey Calculation Method:

Well NBU 1022-25G3S

**TVD Reference:** 

GL 5102' & RKB 18' @ 5120.00ft GL 5102' & RKB 18' @ 5120.00ft

MD Reference:

North Reference:

True

Minimum Curvature

**Project** 

Uintah County, UT NAD27

Map System: Geo Datum:

US State Plane 1927 (Exact solution)

NAD 1927 (NADCON CONUS)

System Datum:

Mean Sea Level

Map Zone:

Utah Central 4302

Site

From:

Well

NBU 1022-25G Pad, Sec 25 T10S R22E

Site Position:

Lat/Long

Northing:

585,762.92ft

Latitude:

39° 55' 20.230 N

**Position Uncertainty:** 

Easting:

2,593,557.46 ft

Longitude:

109° 23' 0.410 W

0.00 ft

Slot Radius:

**Grid Convergence:** 

1.36 °

NBU 1022-25G3S, 1765' FNL 1482' FEL

**Well Position** 

+N/-S +E/-W 0.00 ft 0.00 ft

Northing: Easting:

585,758.40 ft 2,593,538.08 ft

11.34

Latitude: Longitude:

39° 55′ 20.190 N 109° 23' 0.660 W

**Position Uncertainty** 

0.00 ft

Wellhead Elevation:

10/21/2008

ft

**Ground Level:** 

65.90

5,102.00 ft

52,590

0.00 NBU 1022-25G3S PB

Wellbore

OH

Plan #1

0.00

0.00

Magnetics

**Model Name** 

Sample Date

Declination (°)

**Dip Angle** (°)

**Field Strength** 

(nT)

IGRF2005-10

Design

**Audit Notes:** Version:

Phase:

PLAN

Tie On Depth:

0.00

7,743.70

+N/-S

+E/-W

Vertical Section:

Depth From (TVD) (ft) 0.00

7,600.00

-485.64

(ft) 0.00

(ft) 0.00

0.00

0.00

0.00

Direction (°) 230.27

Plan Sections Dogleg Vertical Build Turn Measured Depth Inclination **Azimuth** Depth +N/-S +E/-W Rate Rate Rate TFO (°/100ft) (°/100ft) (°/100ft) (ft) (ft) (ft) Target (ft) (°) (°) 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 1,500.00 0.00 0.00 0.00 0.00 0.00 1,500.00 0.00 0.00 0.00 3.00 3.00 0.00 230.27 25.62 -119.99 -144.37 2,353.88 230.27 2,325.72 0.00 0.00 0.00 0.00 -365.65 -439.94 3.242.82 25.62 230.27 3,127,28 -584.30 3.00 -3.00 0.00 180.00 4,096.70 0.00 0.00 3.953.00 -485.64

-584.30

# Scientific Drilling Rocky Mountain Operations

#### **Scientific Drilling**

Planning Report

Database:

EDM 2003.16 Multi User DB

Company:

Kerr McGee Oil and Gas Onshore LP Uintah County, UT NAD27

Project: Site: Well:

NBU 1022-25G Pad NBU 1022-25G3S

Wellbore: Design: OH Plan #1 Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

Survey Calculation Method:

Well NBU 1022-25G3S

GL 5102' & RKB 18' @ 5120.00ft GL 5102' & RKB 18' @ 5120.00ft

True

Minimum Curvature

(ft)  0.00 100.00 200.00 300.00 400.00 423.00  Green River 500.00 600.00 700.00 800.00 1,000.00 1,200.00 1,300.00 1,400.00 Surface Casine 1,500.00 1,600.00 1,700.00 1,800.00 1,900.00 2,000.00 2,100.00 2,200.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00	Azimuth (°)  0.00 0.00 0.00 0.00 0.00 0.00	Vertical Depth (ft) 0.00 100.00 200.00 300.00	+N/-S (ft) 0.00 0.00 0.00	+E/-W (ft) 0.00 0.00	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
(ft)  0.00 100.00 200.00 300.00 400.00 423.00  Green River 500.00 600.00 700.00 800.00 1,000.00 1,200.00 1,300.00 1,400.00 Surface Casine 1,500.00 1,600.00 1,700.00 1,800.00 1,900.00 2,000.00 2,100.00 2,200.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00	0.00 100.00 200.00 300.00	(ft) 0.00 0.00	<b>(ft)</b> 0.00	<b>(ft)</b> 0.00	(°/100ft)	(°/100ft)	(°/100ft)
(ft)  0.00 100.00 200.00 300.00 400.00 423.00  Green River 500.00 600.00 700.00 800.00 1,000.00 1,200.00 1,300.00 1,400.00 Surface Casine 1,500.00 1,600.00 1,700.00 1,800.00 1,900.00 2,000.00 2,100.00 2,200.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00	0.00 100.00 200.00 300.00	(ft) 0.00 0.00	<b>(ft)</b> 0.00	<b>(ft)</b> 0.00	(°/100ft)	(°/100ft)	(°/100ft)
0.00 100.00 200.00 300.00 400.00 423.00  Green River 500.00 600.00 700.00 800.00 1,000.00 1,200.00 1,300.00 1,400.00 Surface Casine 1,500.00 1,600.00 1,700.00 1,800.00 1,900.00 2,000.00 2,100.00 2,200.00	0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 100.00 200.00 300.00	0.00 0.00	0.00	0.00			
100.00 200.00 300.00 400.00 423.00  Green River 500.00 600.00 700.00 800.00 1,000.00 1,100.00 1,200.00 1,300.00 1,400.00 Surface Casine 1,500.00 1,600.00 1,700.00 1,800.00 1,800.00 2,000.00 2,100.00 2,200.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	100.00 200.00 300.00	0.00			0.00	0.00	
200.00 300.00 400.00 423.00  Green River 500.00 600.00 700.00 1,000.00 1,100.00 1,200.00 1,300.00 1,400.00 Surface Casing 1,500.00 1,600.00 1,700.00 1,800.00 1,900.00 2,000.00 2,100.00 2,200.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00	200.00 300.00		0.00			3.00	0.00
300.00 400.00 423.00  Green River 500.00 600.00 700.00 800.00 1,000.00 1,100.00 1,200.00 1,300.00 3,400.00 Surface Casing 1,500.00 1,600.00 1,700.00 1,800.00 1,900.00 2,000.00 2,100.00 2,200.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00	300.00	0.00		0.00	0.00	0.00	0.00
400.00 423.00  Green River 500.00 600.00 700.00 800.00 1,000.00 1,100.00 1,200.00 1,300.00 1,400.00 Surface Casing 1,500.00 1,600.00 1,700.00 1,800.00 1,900.00 2,000.00 2,100.00 2,200.00	0.00 0.00 0.00 0.00	0.00			0.00	0.00	0.00	0.00	0.00
423.00  Green River 500.00 600.00 700.00 800.00 900.00 1,000.00 1,200.00 1,300.00 1,400.00 Surface Casing 1,500.00 1,600.00 1,700.00 1,800.00 1,900.00 2,000.00 2,100.00 2,200.00	0.00 0.00 0.00			0.00	0.00	0.00	0.00	00.0	0.00
423.00  Green River 500.00 600.00 700.00 800.00 900.00 1,000.00 1,200.00 1,300.00 1,400.00 Surface Casing 1,500.00 1,600.00 1,700.00 1,800.00 1,900.00 2,000.00 2,100.00 2,200.00	0.00 0.00 0.00		400.00	0.00	0.00	0.00	0.00	0.00	0.00
Green River 500.00 600.00 700.00 800.00 900.00 1,000.00 1,200.00 1,300.00 3,400.00 Surface Casing 1,500.00 1,600.00 1,700.00 1,800.00 2,000.00 2,100.00 2,200.00	0.00 0.00	() ()()	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00 600.00 700.00 800.00 900.00 1,000.00 1,200.00 1,300.00 3,400.00 Surface Casing 1,500.00 1,600.00 1,700.00 1,800.00 2,000.00 2,100.00 2,200.00	0.00	5.05	423.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00 700.00 800.00 900.00 1,000.00 1,100.00 1,200.00 1,300.00 3urface Casing 1,500.00 1,600.00 1,700.00 1,800.00 2,000.00 2,100.00 2,200.00	0.00								
700.00 800.00 900.00 1,000.00 1,100.00 1,200.00 1,300.00 1,400.00 Surface Casing 1,500.00 1,600.00 1,700.00 1,800.00 2,000.00 2,100.00 2,200.00		0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00 900.00 1,000.00 1,100.00 1,200.00 1,300.00 1,400.00 Surface Casing 1,500.00 1,600.00 1,700.00 1,800.00 1,900.00 2,000.00 2,100.00 2,200.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00 1,000.00 1,100.00 1,200.00 1,300.00 1,400.00 Surface Casing 1,500.00 1,600.00 1,700.00 1,800.00 1,900.00 2,000.00 2,100.00 2,200.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00 1,100.00 1,200.00 1,300.00 1,400.00  Surface Casing 1,500.00 1,700.00 1,800.00 1,900.00 2,000.00 2,100.00 2,200.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00 1,100.00 1,200.00 1,300.00 1,400.00 Surface Casing 1,500.00 1,600.00 1,700.00 1,800.00 1,900.00 2,000.00 2,100.00 2,200.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00 1,200.00 1,300.00 1,400.00 Surface Casing 1,500.00 1,600.00 1,700.00 1,800.00 1,900.00 2,000.00 2,100.00 2,200.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00 1,300.00 1,400.00 Surface Casing 1,500.00 1,600.00 1,700.00 1,800.00 1,900.00 2,000.00 2,100.00 2,200.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00 1,400.00 Surface Casing 1,500.00 1,600.00 1,700.00 1,800.00 1,900.00 2,000.00 2,100.00 2,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00  Surface Casing 1,500.00 1,600.00 1,700.00 1,800.00 1,900.00 2,000.00 2,100.00 2,200.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
Surface Casing 1,500.00 1,600.00 1,700.00 1,800.00 1,900.00 2,000.00 2,100.00 2,200.00	0.00	0.00	•						
1,500.00 1,600.00 1,700.00 1,800.00 1,900.00 2,000.00 2,100.00 2,200.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00 1,600.00 1,700.00 1,800.00 1,900.00 2,000.00 2,100.00 2,200.00	g								
1,600.00 1,700.00 1,800.00 1,900.00 2,000.00 2,100.00 2,200.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00 1,800.00 1,900.00 2,000.00 2,100.00 2,200.00	3.00	230.27	1,599.95	-1.67	-2.01	2.62	3.00	3.00	0.00
1,800.00 1,900.00 2,000.00 2,100.00 2,200.00	6.00	230.27	1,699.63	-6.69	-8.05	10.46	3.00	3.00	0.00
1,900.00 2,000.00 2,100.00 2,200.00	9.00	230.27	1,798.77	-15.03	-18.08	23.51	3.00	3.00	0.00
2,000.00 2,100.00 2,200.00	9.00	250.27		-10.00					
2,100.00 2,200.00	12.00	230.27	1,897.08	-26.68	-32.10	41.74	3.00	3.00	0.00
2,200.00	15.00	230.27	1,994.31	-41.60	-50.05	65.08	3.00	3.00	0.00
	18.00	230.27	2,090.18	-59.75	<i>-</i> 71.89	93.48	3.00	3.00	0.00
	21.00	230.27	2,184.43	-81.08	-97.56	126.85	3.00	3.00	0.00
2,300.00	24.00	230.27	2,276.81	-105.54	-126.98	165.12	3.00	3.00	0.00
2,353.88	25.62	230.27	2,325.72	-119.99	-144.37	187.72	3.00	3.00	0.00
•	25.62	230.27	2,367.30	-132.74	-159.70	207.66	0.00	0.00	0.00
2,400.00							0.00		
2,500.00	25.62	230.27	2,457.47	-160.37	-192.95	250.90		0.00	0.00
2,600.00	25.62	230.27	2,547.64	-188.01	-226.20	294.13	0.00	0.00	0.00
2,700.00	25.62	230.27	2,637.82	-215.64	-259.45	337.37	0.00	0.00	0.00
2,800.00	25.62	230.27	2,727.99	-243.28	-292.70	380.60	0.00	0.00	0.00
2,900.00	25.62	230.27	2,818.16	-270.91	-325.95	423.83	0.00	0.00	0.00
3,000.00	25.62	230.27	2,908.33	-298.55	-359.20	467.07	0.00	0.00	0.00
3,100.00	25.62	230.27	2,998.50	-326.18	-392.45	510.30	0.00	0.00	0.00
3,200.00	25.62	230.27	3,088.67	-353.82	-425.70	553.54	0.00	0.00	0.00
3,242.82	25.62	230.27	3,127.28	-365.65	-439.94	572.05	0.00	0.00	0.00
3,300.00	23.90	230.27	3,179.20	-380.96	-458.35	596.00	3.00	-3.00	0.00
3,400.00	20.90	230.27	3,271.65	-405.31	-487.65	634.10	3.00	-3.00	0.00
3,500.00	17.90	230.27	3,365.96	-426.54	-513,20	667.32	3.00	-3.00	0.00
3,590.81	15.18	230.27	3,453.00	-443.06	-533,08	693.16	3.00	-3.00	0.00
Wasatch									
			_ ,	=-					
3,600.00	14.90	230.27	3,461.88	-444.59	-534.91	695.55	3.00	-3.00	0.00
3,700.00	11.90	230.27	3,559.14	-459.40	-552.73	718.72	3.00	-3.00	0.00
3,800.00	8.90	230.27	3,657.49	-470.94	-566.61	736.77	3.00	-3.00	0.00
3,900.00	5.90	230.27	3,756.64	<del>-4</del> 79.17	-576.52	749.65	3.00	-3.00	0.00
4,000.00		230.27	3,856.34	-484.08	-582.42	757.33	3.00	-3.00	0.00
4,096.70	2.90		0.050.05	,- <b>-</b> - :	-584.30	759.77	3.00	-3.00	0.00
•		ለ ለለ	o neo u∧	_AQE @A					U.UU
4,100.00	0.00	0.00	3,953.00	-485.64 485.64					
4,200.00	0.00 0.00	0.00	3,956.30	-485.64	-584.30	759.77	0.00	0.00	0.00
4,300.00 4,400.00	0.00								



7,400.00

7,500.00

7,600.00

7,700.00

7,743.70

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7,256.30

7,356.30

7,456.30

7,556.30

7,600.00

#### **Scientific Drilling**

Planning Report

Database:

EDM 2003.16 Multi User DB

Company:

Kerr McGee Oil and Gas Onshore LP Uintah County, UT NAD27

Project: Site: Well:

NBU 1022-25G Pad NBU 1022-25G3S

Wellbore: Design:

ОН Plan #1 Local Co-ordinate Reference:

TVD Reference: **MD Reference:** 

North Reference:

Survey Calculation Method:

Well NBU 1022-25G3S

GL 5102' & RKB 18' @ 5120.00ft GL 5102' & RKB 18' @ 5120.00ft

True

Minimum Curvature

lanned Survey	in Historian (Naviga)						De light with	a Nama da Sara	an wijin libbin Alba
Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Section	Rate	Rate	Rate
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)
4,500.00	0.00	0.00	4,356.30	-485.64	-584.30	759.77	0.00	0.00	0.00
4,600.00	0.00	0.00	4,456.30	-485.64	-584.30	759.77	0.00	0.00	0.00
4,700.00	0.00	0.00	4,556.30	-485.64	-584.30	759.77	0.00	0.00	0.00
4,800.00	0.00	0.00	4,656.30	-485.64	-584.30	759.77	0.00	0.00	0.00
4,900.00	0.00	0.00	4,756.30	-485.64	-584.30	759.77	0.00	0.00	0.00
5,000.00	0.00	0.00	4,856.30	-485.64	-584.30	759.77	0.00	0.00	0.00
5,100.00	0.00	0.00	4,956.30	-485.64	-584.30	759.77	0.00	0.00	0.00
5,200.00	0.00	0.00	5,056.30	-485.64	-584.30	759.77	0.00	0.00	0.00
5,300.00	0.00	0.00	5,156.30	-485.64	-584.30	759.77	0.00	0.00	0.00
5,400.00	0.00	0.00	5,256.30	-485.64	-584.30	759.77	0.00	0.00	0.00
5,500.00	0.00	0.00	5,356.30	-485.64	-584.30	759.77	0.00	0.00	0.00
5,600.00	0.00	0.00	5,456.30	-485.64	-584.30	759.77	0.00	0.00	0.00
5,700.00	0.00	0.00	5,556.30	-485.64	-584.30	759.77	0.00	0.00	0.00
5,800.00	0.00	0.00	5,656.30	-485.64	-584.30	759.77	0.00	0.00	0.00
5,900.00	0.00	0.00	5,756.30	-485.64	-584.30	759.77	0.00	0.00	0.00
6,000.00	0.00	0.00	5,856.30	-485.64	-584.30	759.77	0.00	0.00	0.00
6,100.00	0.00	0.00	5,956.30	-485.64	-584.30	759.77	0.00	0.00	0.00
6,200.00	0.00	0.00	6,056.30	-485.64	-584.30	759.77	0.00	0.00	0.00
6,300.00	0.00	0.00	6,156.30	-485.64	-584.30	759.77	0.00	0.00	0.00
6,400.00	0.00	0.00	6,256.30	-485.64	-584.30	759.77	0.00	0.00	0.00
6,500.00	0.00	0.00	6,356.30	-485.64	-584.30	759.77	0.00	0.00	0.00
6,554.70	0.00	0.00	6,411.00	-485.64	-584.30	759.77	0.00	0.00	0.00
Mesaverde									
6,600.00	0.00	0.00	6,456.30	-485.64	-584.30	759.77	0.00	0.00	0.00
6,700.00	0.00	0.00	6,556.30	-485.64	-584.30	759.77	0.00	0.00	0.00
6,800.00	0.00	0.00	6,656.30	-485.64	-584.30	759.77	0.00	0.00	0.00
6,900.00	0.00	0.00	6,756.30	-485.64	-584.30	759.77	0.00	0.00	0.00
7,000.00	0.00	0.00	6,856.30	-485.64	-584.30	759.77	0.00	0.00	0.00
7,100.00	0.00	0.00	6,956.30	-485.64	-584.30	759.77	0.00	0.00	0.00
7,200.00	0.00	0.00	7,056.30	-485,64	-584.30	759.77	0.00	0.00	0.00
7,300.00	0.00	0.00	7,156.30	-485.64	-584.30	759.77	0.00	0.00	0.00

Target Name - hit/miss target Dip - Shape	Angle Di (°)	p Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	<b>Longitude</b>
NBU 1022-25G3S PBHL - plan hits target center - Circle (radius 25.00)	0.00	0.00	7,600.00	-485.64	-584.30	585,259.07	2,592,965.43	39° 55′ 15.390 N	109° 23' 8.160 W

-485.64

-485.64

-485.64

-485.64

-485.64

-584,30

-584.30

-584.30

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759.77

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#### **Scientific Drilling**

#### Planning Report

Database:

EDM 2003.16 Multi User DB

Company:

Kerr McGee Oil and Gas Onshore LP

Project: Site: Well: Uintah County, UT NAD27 NBU 1022-25G Pad

NBU 1022-25G Pa

Wellbore: Design: OH Plan #1 Local Co-ordinate Reference:

TVD Reference:

MD Reference:
North Reference:

GL 5102' & RKB 18' @ 5120.00ft

True

Survey Calculation Method:

Minimum Curvature

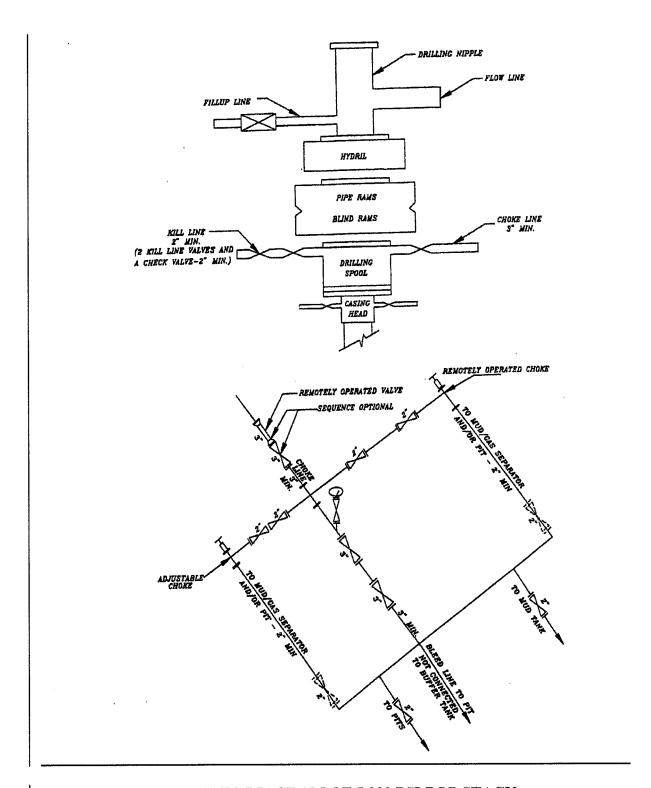
Well NBU 1022-25G3S

GL 5102' & RKB 18' @ 5120.00ft

Casing Points								
	Measured	Vertical				Casing	Hole	
	Depth	Depth				Diameter	Diameter	
	(ft)	(ft)		Name		(in)	(in)	
	1,400.00	1,400.00	Surface Casing			9.625	13.500	

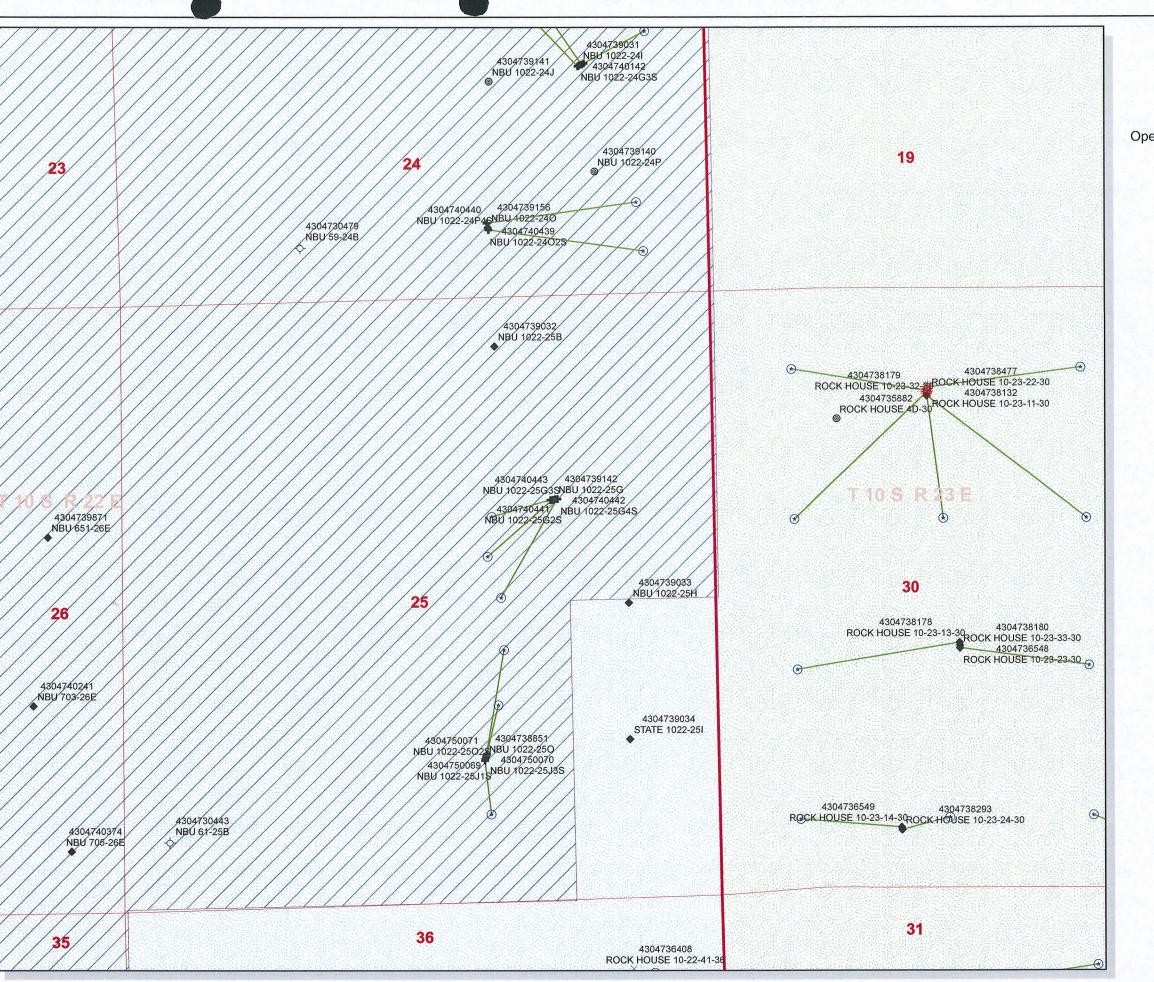
Formations		
	그리는 어느는 아이들이 그렇다고 있는데 하는데 되는데 하다.	
Measured Vertical	선하는 이 병원 전에 가능하는 화장이 하다고 있다. 경기 수 있는	The Control of the Co
Depth Depth	하는 없이 어린 맛이 하는 하는데 살아 그렇게 된	Dip Direction
	Name Lithology	
423.00 423.00	Green River	0,00
3,590.81 3,453.00	Wasatch	0.00
6,554.70 6,411.00	Mesaverde	0.00

#### **EXHIBIT A**



## WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 12/01/2008			API NO. ASSIGNED: 43-047-40443				
WELL NAME:	NBU 1022-25G3S						
OPERATOR: KERR-MCGEE OIL & GAS ( N2995 )			PHONE NUMBER: 720-929-6226				
CONTACT:	KEVIN MCINTYRE						
PROPOSED LOCATION:			INSPECT LOCATN BY: / /				
SWNE 25 100S 220E SURFACE: 1765 FNL 1482 FEL BOTTOM: 2250 FNL 2065 FEL COUNTY: UINTAH LATITUDE: 39.92232 LONGITUDE: -109.3834			Tech Review	Initials	Date		
			Engineering	DKO	4/15/09		
			Geology		,		
			Surface				
UTM SURF EASTINGS: 638153 NORTHINGS: 442017 FIELD NAME: NATURAL BUTTES (630)			Surrace				
LEASE TYPE: 3 - State  LEASE NUMBER: ST ML 22447  SURFACE OWNER: 3 - State			PROPOSED FORMATION: WSMVD COALBED METHANE WELL? NO				
RECEIVED AND/OR REVIEWED: LOCATION AND SITING:							
Plat R649-2-3.							
	: Fed[] Ind[] Sta[] Fee[]	Unit: NATURAL BUTTES					
(No. 22013542 )							
N Potash (Y/N)			R649-3-2. General				
Oil Shale 190-5 (B) or 190-3 or 190-13			Siting: 460 From Qtr/Qtr & 920' Between Wells R649-3-3. Exception				
Water Permit (No. 43-8496 )							
Drilling Unit							
(Date:)			Board Cause No: 19314 Eff Date: 13:2-1999				
Where Fee Surf Agreement (Y/N) Siting: 460 fr is bary or Whitemin. Tock							
Intent to Commingle $(Y/N)$ $\sqrt{R649-3-11}$ . Directional Drill							
COMMENTS: Mocas Janie (09-02-08)							
COMMENTS:							
STIPULATIONS: 1-STATEMENT OF BASIS 2-0, Shale							



API Number: 4304740443

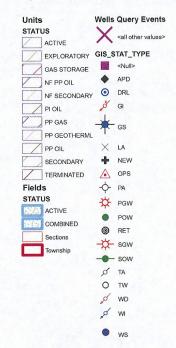
Well Name: NBU 1022-25G3S

Township 10.0 S Range 22.0 E Section 25

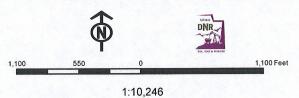
Meridian: SLBM

Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared: Map Produced by Diana Mason









## **Application for Permit to Drill** Statement of Basis

2/18/2009

#### Utah Division of Oil, Gas and Mining

Page 1

APD No

API WellNo

Status

Well Type

**Surf Ownr** 

**CBM** 

1219

43-047-40443-00-00

GW

S

No

Operator Well Name NBU 1022-25G3S

KERR-MCGEE OIL & GAS ONSHORE, L.P. Surface Owner-APD

Unit

NATURAL BUTTES

Field

NATURAL BUTTES

Type of Work

Location SWNE 25 10S 22E S 1765 FNL 1482 FEL GPS Coord (UTM) 638153E 4420177N

#### **Geologic Statement of Basis**

Kerr McGee proposes to set 4,000' of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 5,100'. A search of Division of Water Rights records shows no water wells within a 10,000 foot radius of the center of Section 25. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. Production casing cement should be brought up above the base of the moderately saline ground water to isolate it from fresher waters uphole.

**Brad Hill** 

2/18/2009

**APD Evaluator** 

Date / Time

#### **Surface Statement of Basis**

The general area is Archy Draw located south of the White River in Uintah County, Utah. Vernal, Utah is approximately 37 miles to the northwest and Bonanza, Utah approximately 12 miles to the northeast. Archy Bench is approximately 1 mile to the west and West Fork of Saddle Tree Draw 1-2 miles to the east. The topography in the area is characterized by steep sidehills bordering winding narrow to moderately narrow draws. Many side-slopes are rimmed with sandstone bedrock forming vertical cliffs. Numerous small side draws lead away from the main divides. All drainages are ephemeral only flowing during winter snowmelt and following intense summer rainstorms. Roads are commonly constructed in the bottom of the washes and are subject to washing out following runoff events. Erosion from side-slopes is moderate. No streams seeps or springs are known to exist in the area.

Four wells are planned on the original proposed NBU 1022-25G location. This location is approximately 58 road miles south of Ouray, Utah accessed by Uintah County and oilfield development to within approximately 150 feet of the site where a new road will be constructed to the location.

The original planned location will be lengthened 20' and widened 25 feet. The reserve pit will be increased to 100 feet wide and 250 feet long to facilitate the addition of 3 wells. The location is in a relatively wide area in the bottom of Archy Wash. It begins near the road on the north and extends south to near the toe of a steep slope of a ridge. The ridge was formed as part of the canyon rather than from outwash on side draws which are common in the wash. The wash is rimmed with steep near vertical walls with sandstone ledges near the top. Diversions are planned around both ends of the location to catch and divert possible side slope runoff. The White River is approximately 2 miles down drainage.

The surface and minerals are both owned by SITLA. Ed Bonner and Jim Davis of SITLA were invited the site visit but said they would not attend. SITLA is to be contacted for reclamation standards for the site, including seed mixes to be used for re-vegetation.

Ben Williams and Pat Rainbolt of the Utah Division of Wildlife Resources attended the pre-site. Mr. Williams stated that no wildlife values would be significantly affected by drilling and operating a well at this location



# **Statement of Basis**

2/18/2009

### Utah Division of Oil, Gas and Mining

Page 2

Floyd Bartlett

9/2/2008

**Onsite Evaluator** 

Date / Time

#### Conditions of Approval / Application for Permit to Drill

Category

Condition

Pits

A synthetic liner with a minimum thickness of 20 mils and an appropriate thickness of

felt sub-liner to cushion the liners shall be properly installed and maintained in the

reserve pit.

Surface

Drainages adjacent to the proposed pad shall be diverted around the location.

#### Utah Division of Oil, Gas and Mining

**Operator** 

KERR-MCGEE OIL & GAS ONSHORE, L.P.

Well Name

NBU 1022-25G3S

**API Number** 

43-047-40443-0

**APD No** 1219

Field/Unit NATURAL BUTTES

Location: 1/4,1/4 SWNE

**Sec** 25

**Tw** 10S

Rng 22E

1765 FNL 1482 FEL

GPS Coord (UTM)

**Surface Owner** 

#### **Participants**

Floyd Bartlett (DOGM), Ramie Hoopes, Griz Oleen and Tony Kzneck (Kerr McGee), Ben Williams and Pat Rainbolt (UDWR) and David Kay (Uintah Engineering and Land Surveying).

#### Regional/Local Setting & Topography

The general area is Archy Draw located south of the White River in Uintah County, Utah. Vernal, Utah is approximately 37 miles to the northwest and Bonanza, Utah approximately 12 miles to the northeast. Archy Bench is approximately 1 mile to the west and West Fork of Saddle Tree Draw 1-2 miles to the east. The topography in the area is characterized by steep sidehills bordering winding narrow to moderately narrow draws. Many side-slopes are rimmed with sandstone bedrock forming vertical cliffs. Numerous small side draws lead away from the main divides. All drainages are ephemeral only flowing during winter snowmelt and following intense summer rainstorms. Roads are commonly constructed in the bottom of the washes and are subject to washing out following runoff events. Erosion from side-slopes is moderate. No streams seeps or springs are known to exist in the area.

Four wells are planned on the original proposed NBU 1022-25G location. This location is approximately 58 road miles south of Ouray, Utah accessed by Uintah County and oilfield development to within approximately 150 feet of the site where a new road will be constructed to the location.

The original planned location will be lengthened 20' and widened 25 feet. The reserve pit will be increased to 100 feet wide and 250 feet long to facilitate the addition of 3 wells. The location is in a relatively wide area in the bottom of Archy Wash. It begins near the road on the north and extends south to near the toe of a steep slope of a ridge. The ridge was formed as part of the canyon rather than from outwash on side draws which are common in the wash. The wash is rimmed with steep near vertical walls with sandstone ledges near the top. Diversions are planned around both ends of the location to catch and divert possible side slope runoff. The White River is approximately 2 miles down drainage.

The surface and minerals are both owned by SITLA. Ed Bonner and Jim Davis of SITLA were invited the site visit but said they would not attend.

#### Surface Use Plan

**Current Surface Use** 

Recreational
Wildlfe Habitat

New Road

Miles Well Pad

**Src Const Material** 

**Surface Formation** 

0.04

Width 315

Length 430

Onsite

UNTA

Ancillary Facilities N

#### Waste Management Plan Adequate?

#### **Environmental Parameters**

Affected Floodplains and/or Wetland N

#### Flora / Fauna

Vegetation included big sagebrush, greasewood, spiny hopsage, needle and thread grass, cheatgrass and broom snakeweed.

Antelope, rabbits, coyotes, and small mammals, birds and raptors.

#### Soil Type and Characteristics

Moderate to deep gravely sandy loam

#### **Erosion Issues** N

#### Sedimentation Issues Y

Diversions are planned around both ends of the location to catch and divert possible side slope runoff.

#### Site Stability Issues N

#### Drainage Diverson Required Y

Diversions are planned around both ends of the location to catch and divert possible side slope runoff.

#### Berm Required? N

#### **Erosion Sedimentation Control Required?** Y

Diversions are planned around both ends of the location to catch and divert possible side slope runoff.

Paleo Potental Observed? N

Cultural Survey Run? Y

**Cultural Resources?** 

#### Reserve Pit

Site-Specific Factors		Site 1	Ranking	
Distance to Groundwater (feet)	100 to 200		5	
Distance to Surface Water (feet)	>1000		0	
Dist. Nearest Municipal Well (ft)	>5280		0	
Distance to Other Wells (feet)	<300		20	
Native Soil Type	Mod permeability		10	
Fluid Type	Fresh Water		5	
<b>Drill Cuttings</b>	Normal Rock		0	
Annual Precipitation (inches)	<10		0	
Affected Populations	<10		0	
Presence Nearby Utility Conduits	Not Present		0	
		Final Score	40 1	Sensitivity Level

#### Characteristics / Requirements

A reserve pit 100' x 250' x 10' deep is planned in the southeast side of the location. It will be lined with a 20-mil liner and an appropriate thickness of felt sub-liner to cushion the surface.

Closed Loop Mud Required? N

Liner Required?

Liner Thickness 20

Pit Underlayment Required? Y

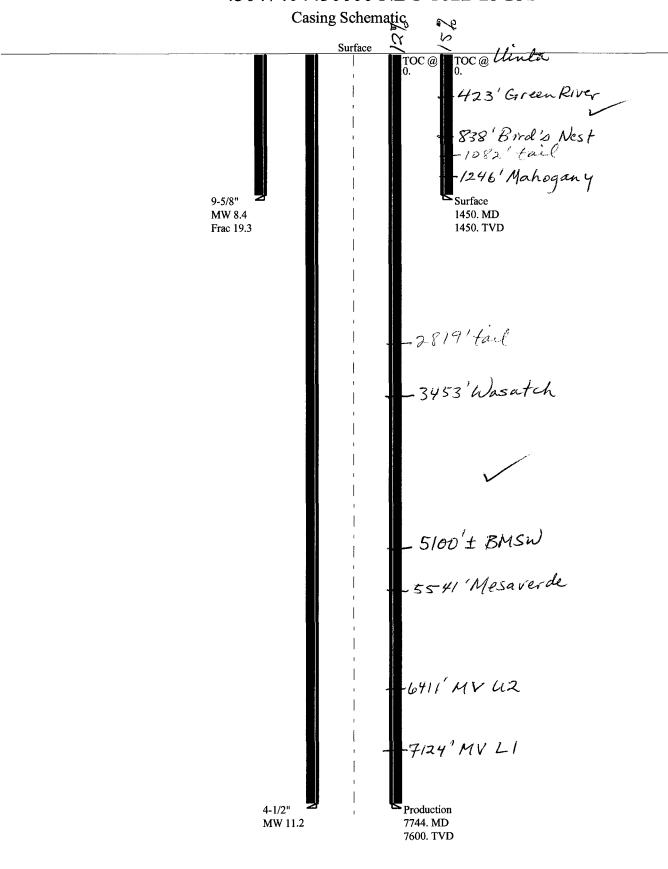
#### Other Observations / Comments

Floyd Bartlett **Evaluator** 

9/2/2008

Date / Time

# 43047404430000 NBU 1022-25G3S



Well name:

43047404430000 NBU 1022-25G3S

Operator:

Kerr McGee Oil & Gas Onshore L.P.

String type:

Surface

Project ID:

43-047-40443-0000

Location:

Uintah County, Utah

**Design parameters:** 

Collapse

Mud weight: Design is based on evacuated pipe.

8.400 ppg

Collapse:

Design factor

Minimum design factors:

1.125

**Environment:** H2S considered?

Surface temperature: Bottom hole temperature:

No 75 °F 95 °F

Temperature gradient: 1.40 °F/100ft Minimum section length: 1,300 ft

Burst:

Design factor

1.00

1.80 (J)

1.80 (J)

1,270 ft

Cement top:

Surface

**Burst** 

Max anticipated surface

pressure: Internal gradient:

1,276 psi 0.120 psi/ft 1,450 psi

Calculated BHP Annular backup:

0.23 ppg

Tension:

8 Round STC: 8 Round LTC:

**Buttress:** Premium:

Body yield:

Neutral point:

1.60 (J) 1.50 (J) 1.50 (B)

Tension is based on buoyed weight.

Non-directional string.

Re subsequent strings:

Next setting depth: Next mud weight:

11.200 ppg 4,422 psi Next setting BHP: 19.250 ppg Fracture mud wt:

Fracture depth: Injection pressure: 1,450 ft 1,450 psi

7,600 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	1450	9.625	36.00	J-55	LT&C	1450	1450	8.796	629.4
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	633	2020	3.193	1433	3520	2.46	46	453	9.91 J

Prepared

Helen Sadik-Macdonald Div of Oil, Gas & Mining

Phone: (801) 538-5357 FAX: (801) 359-3940

Date: April 9,2009 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 1450 ft, a mud weight of 8.4 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name:

43047404430000 NBU 1022-25G3S

Operator:

Kerr McGee Oil & Gas Onshore L.P.

11.200 ppg

String type:

Production

Project ID:

43-047-40443-0000

Location:

Collapse

Design parameters:

Mud weight:

Uintah County, Utah

Minimum design factors:

Collapse:

Design factor 1.125 **Environment:** 

H2S considered? No Surface temperature: 75 °F

Bottom hole temperature: 181 °F 1.40 °F/100ft Temperature gradient:

Minimum section length: 1,500 ft

Burst:

1.00 Design factor

Cement top:

Surface

Burst

Max anticipated surface

pressure: 2,750 psi

Design is based on evacuated pipe.

Internal gradient: 0.220 psi/ft Calculated BHP 4,422 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J) 8 Round LTC: 1.80 (J) 1.60 (J)

Body yield:

**Buttress:** Premium: 1.50 (J)

1.50 (B)

Tension is based on buoyed weight. 6,472 ft Neutral point:

Directional well information:

Kick-off point 1500 ft 760 ft Departure at shoe: Maximum dogleg: 3 °/100ft

0 ° Inclination at shoe:

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	7744	4.5	11.60	I-80	LT&C	7600	7744	3.875	675.8
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	4422	6360	1.438	4422	7780	1.76	73	212	2.89 J

Prepared

Helen Sadik-Macdonald Div of Oil, Gas & Mining

Phone: (801) 538-5357 FAX: (801) 359-3940

Date: April 9,2009 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 7600 ft, a mud weight of 11.2 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

# BOPE REVIEW

Kerr-McGee NBU 1022-25G3S

API 43-047-40443-0000

INPUT	· · · · · · · · · · · · · · · · · · ·			
Well Name	Kerr-McGee NBU 10	)22-25G3S API 4	43-047-40443-	0000
	String 1	String 2		
Casing Size (")	9 5/8	4 1/2		
Setting Depth (TVD)	1450	7600		
Previous Shoe Setting Depth (TVD)	40	1450		
Max Mud Weight (ppg)	8.4	11.2		
BOPE Proposed (psi)	500	5000		
Casing Internal Yield (psi)	3520	7780		
Operators Max Anticipated Pressure (psi)	4332	11.0	ppg /	

Calculations	String 1	9 5/8		
Max BHP [psi]	.052*Setting Depth*MW =	633		<del></del>
			<b>BOPE Adequate</b>	For Drilling And Setting Casing at Depth?
MASP (Gas) [psi]	Max BHP-(0.12*Setting Depth) =	459	YES -	Air Drill to surface shoe with diverter
MASP (Gas/Mud) [psi]	Max BHP-(0.22*Setting Depth) =	314	YES	
			*Can Full Expect	ed Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP22*(Setting Depth - Previous Shoe Depth) =	323	€ NO Re	asonable Desty
Required Casing/BOPE Test	Pressure	1450		
Max Pressure Allowed @ Previous Casing Shoe =		40	psi 2	*Assumes 1psi/ft frac gradient

Calculations	String 2	4 1/2	91		
Max BHP [psi]	.052*Setting Depth*MW =	4426		<del></del>	
	-		BOPE Adequ	ate For Drilling And Setting Casing at Depth?	
MASP (Gas) [psi]	Max BHP-(0.12*Setting Depth) =	3514	YES		
MASP (Gas/Mud) [psi]	Max BHP-(0.22*Setting Depth) =	2754	YES		
			*Can Full Exp	pected Pressure Be Held At Previous Shoe?	
Pressure At Previous Shoe	Max BHP22*(Setting Depth - Previous Shoe Depth) =	3073	≪ NO	(Legonab) (	
Required Casing/BOPE Test I	Pressure	50.00	pşi /		
*Max Pressure Allowed @ Previous Casing Shoe =		/1450	psi 🗸	*Assumes 1psi/ft frac gradient	

# BUREAU OF LAND MANAGEMENT Utah State Office P.O. Box 45155 Salt Lake City, Utah 84145-0155

IN REPLY REFER TO: 3160 (UT-922)

December 5, 2008

#### Memorandum

To:

Assistant District Manager Minerals, Vernal District

From:

Michael Coulthard, Petroleum Engineer

Subject:

2008 Plan of Development Natural Buttes Unit Uintah

County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2008 within the Natural Buttes Unit, Uintah County, Utah.

API #	WE	LL NAME				LOCA	rion			
(Proposed PZ	Wasa	atch/MesaVe	rde)							
43-047-40444	NBU	921-10G4S BHL							1931 1441	
43-047-40445	NBU	921-10F2S BHL							1927 1959	
43-047-40446	NBU	921-10E3S BHL							1929 0406	
43-047-40447	NBU	921-10F3T	Sec	10	T09S	R21E	1897	FNL	1928	FWL
43-047-40448	NBU	922-29D1T	Sec	29	T09S	R22E	0571	FNL	1009	FWL
43-047-40423	NBU	921-10CT	Sec	10	T09S	R21E	0811	FNL	1792	FWL
43-047-40428	NBU	921-13CT	Sec	13	T09S	R21E	0655	FNL	1920	FWL
43-047-40435	NBU	1022-3В4Т	Sec	03	T10S	R22E	1022	FNL	1751	FEL
43-047-40434	NBU	1022-2A2T	Sec	02	T10S	R22E	0203	FNL	0896	FEL
43-047-40424	NBU	921-10G2S BHL							1824 2462	
43-047-40425	NBU	921-10D2S	Sec	10	T09S	R21E	0799	FNL	1776	FWL

BHL Sec 10 T09S R21E 0543 FNL 0648 FWL

Page 2

43-047-40426	NBU	921-10B4S BHL	Sec Sec		T09S T09S	R21E R21E	0823 0705	FNL FNL	1808 1929	
43-047-40427	NBU	921-13G2S BHL			T09S T09S	R21E R21E	0655 1372		1940 2523	
43-047-40429	NBU	921-13B2S BHL	Sec Sec		T09S T09S	R21E R21E	0655 0488		1960 2541	
43-047-40430	NBU	921-13D4S BHL				R21E R21E			1900 0912	
43-047-40431	NBU	1022-2B2S BHL	Sec Sec		T10S T10S	R22E R22E	0202 0065	FNL FNL	0916 2075	FEL FEL
43-047-40432	NBU	1022-2A3S BHL		-	T10S T10S		0206 0680		0857 0820	FEL FEL
43-047-40433	NBU	1022-2A4S BHL	Sec Sec		T10S T10S		0207 1175		0836 0315	FEL FEL
43-047-40436	NBU	1022-3A3S BHL			T10S T10S		1013 0904		1734 0822	FEL FEL
43-047-40437	NBU	1022-3C1S BHL	Sec Sec		T10S T10S		1040 0380		1787 2354	FEL FWL
43-047-40438	NBU	1022-3B2S BHL			T10S T10S		1031 0048		1769 2516	FEL FEL
43-047-40439	NBU				T10S T10S		0684 0830		2016 0690	FEL FEL
43-047-40440	NBU					R22E R22E	0625 0400		2002 0635	FEL FEL
43-047-40441	NBU		Sec Sec			R22E R22E	1768 1900		1502 2025	FEL FEL
43-047-40442	NBU				T10S T10S		1758 2615	FNL FNL	1443 1955	
43-047-40443	NBU					R22E R22E	1765 2250		1482 2065	

This office has no objection to permitting the wells at this time.

/s/ Michael L. Coulthard

bcc: File - Natural Buttes Unit

Division of Oil Gas and Mining

Central Files Agr. Sec. Chron Fluid Chron

MCoulthard:mc:12-5-08

From:

Jim Davis

To:

Bonner, Ed; Mason, Diana

Date:

1/28/2009 10:59 AM

Subject:

APD approvals- A bunch of Kerr McGee

CC:

Garrison, LaVonne; Raleen.White@anadarko.com The following wells have been approved by SITLA including arch and paleo clearance.

Condition of approval: Spot-checking of pad construction/ extension for paleo resources:

NBU 1022-24B1AS 4304740129 4304740130 NBU 1022-24B1DS NBU 1022-24G1S 4304740131

and

NBU 1022-25J3S 4304750070 NBU 1022-25J1S 4304750069 NBU 1022-2502S 4304750071

No COA's:

NBU 1022-24G2S 4304740140 NBU 1022-24G3S 4304740142 NBU 1022-241IS 4304740141

FYI: These wells had been approved by SITLA previously. The APDs have been extended. Kerr McGee recently sent paleo reports to SITLA- there were no recommendations from the surveying paleontologist. Just in case anyone needs it, SITLA (still) approves of these APDs.

NBU 1022-25G 4304739142 NBU 1022-25G3S 4304740443 NBU 1022-25G4S 4304740442 4304740441 NBU 1022-25G2S

Jim Davis **Utah Trust Lands Administration** jimdavis1@utah.gov Phone: (801) 538-5156

## Helen Sadik-Macdonald - RE: RE: Application For Permit to Drill Sent Back for

From: "Schn

"Schneebeck Dulnoan, Kathy"

To:

"Helen Sadik-Macdonald", "White, Raleen"

Date:

4/7/2009 3:30 PM

Cubinet DE DE

Subject: RE: RE: Application For Permit to Drill Sent Back for

CC:

"Diana Mason", "Dustin Doucet"

No worries. I just sent off replacement copies with the revised pages requested. The package you just received had something different anyway.

I'm sorry for all of this confusion. Sorry you have to go to the dentist, but I hope it goes well.

Thank you.

Kathy Schneebeck Dulnoan
Anadarko E&P Company, LP
Kerr-McGee Oil & Gas Onshore LP
A wholly-owned subsidiary of Anadarko Petroleum Corporation
Direct: 720-929-6007
kathy.schneebeckdulnoan@anadarko.com

From: Helen Sadik-Macdonald [mailto:HMACDONALD@utah.gov]

Sent: Tuesday, April 07, 2009 3:28 PM

To: Schneebeck Dulnoan, Kathy; White, Raleen

Cc: Diana Mason; Dustin Doucet

Subject: FW: RE: Application For Permit to Drill Sent Back for

Sorry, Kathy. The Fed-Ex package had surface location changes in it. I cannot use these. If you have new drill plans and wellbore diagrams, you can email them to me. I'm leaving for a dentist appointment. Will be back tomorrow morning.

Helen Sadik-Macdonald, CPG Engineering Geologist Utah Div. of Oil, Gas & Mining PO Box 145801 Salt Lake City, UT 84114-5801

801/538-5357 Desk 801/359-3940 Fax

>>> On 4/7/2009 at 1:15 PM, in message

<4C00A07B0A6842468A3237500193BBB073FCE2@dnvmbx2.anadarko.com>, "Schneebeck Dulnoan, Kathy" <Kathy.SchneebeckDulnoan@anadarko.com> wrote:

Hi, Helen,

Actually, these were sent to your office last Thursday for Monday delivery via Federal Express. (I'm sorry I'm so confused. This is not my usual self.) If you didn't receive them, I'll resend them today.

Please advise. Thanks!

Kathy Schneebeck Dulnoan Anadarko E&P Company, LP Kerr-McGee Oil & Gas Onshore LP

A wholly-owned subsidiary of Anadarko Petroleum Corporation

Direct: 720-929-6007

kathy.schneebeckdulnoan@anadarko.com

**From:** Schneebeck Dulnoan, Kathy **Sent:** Tuesday, April 07, 2009 12:22 PM **To:** Helen Sadik-Macdonald; White, Raleen

Cc: Diana Mason; Dustin Doucet

Subject: RE: RE: Application For Permit to Drill Sent Back for

Oh, goodness, Helen. I'm so sorry. I just found them on my desk. I would have sworn I sent them out last week...... I have all of the paperwork ready to go, but they got buried. I will get them out to you today.

Kathy Schneebeck Dulnoan Anadarko E&P Company, LP Kerr-McGee Oil & Gas Onshore LP

A wholly-owned subsidiary of Anadarko Petroleum Corporation

Direct: 720-929-6007

kathy.schneebeckdulnoan@anadarko.com

From: Helen Sadik-Macdonald [mailto:HMACDONALD@utah.gov]

**Sent:** Tuesday, April 07, 2009 12:17 PM

To: Schneebeck Dulnoan, Kathy; White, Raleen

Cc: Diana Mason; Dustin Doucet

Subject: Fwd: RE: Application For Permit to Drill Sent Back for

Kathy and Raleen,

If you go to the bottom of this correspondence, it begins with "what is the status of these wells?"

I have 3 hard copy APDs for

NBU 1022-25G2S NBU 1022-25G3S NBU 1022-25G4S

They have 4000' feet of surface casing proposed. I have not received corrections for them yet.

Helen Sadik-Macdonald, CPG Engineering Geologist Utah Div. of Oil, Gas & Mining PO Box 145801 Salt Lake City, UT 84114-5801

801/538-5357 Desk 801/359-3940 Fax

>>> On 3/26/2009 at 2:40 PM, in message

<4C00A07B0A6842468A3237500193BBB05B5ADE@dnvmbx2.anadarko.com>, "Schneebeck Dulnoan, Kathy" <Kathy.SchneebeckDulnoan@anadarko.com> wrote:

Thanks!

Kathy Schneebeck Dulnoan Anadarko E&P Company, LP Kerr-McGee Oil & Gas Onshore LP

A wholly-owned subsidiary of Anadarko Petroleum Corporation

Direct: 720-929-6007

kathy.schneebeckdulnoan@anadarko.com

From: Helen Sadik-Macdonald [mailto:hmacdonald@utah.gov]

**Sent:** Thursday, March 26, 2009 2:36 PM

**To:** Schneebeck Dulnoan, Kathy

Subject: RE: Application For Permit to Drill Sent Back for Revisions

Same to you!

>>> On 3/26/2009 at 2:22 PM, in message

<4C00A07B0A6842468A3237500193BBB05B5ADB@dnvmbx2.anadarko.com>, "Schneebeck Dulnoan,

Kathy" <Kathy.SchneebeckDulnoan@anadarko.com> wrote:

Thank you. You will likely have these pages on Monday.

Have a great weekend.

Kathy Schneebeck Dulnoan Anadarko E&P Company, LP

Kerr-McGee Oil & Gas Onshore LP

A wholly-owned subsidiary of Anadarko Petroleum Corporation

Direct: 720-929-6007

kathy.schneebeckdulnoan@anadarko.com

From: Helen Sadik-Macdonald [mailto:hmacdonald@utah.gov]

**Sent:** Thursday, March 26, 2009 2:03 PM

To: Schneebeck Dulnoan, Kathy

Subject: RE: Application For Permit to Drill Sent Back for Revisions

One copy.

Helen Sadik-Macdonald, CPG, PG Engineering Geologist Utah Div. of Oil, Gas & Mining PO Box 145801 Salt Lake City, UT 84114-5801

801/538-5357 Desk 801/359-3940 Fax

>>> On 3/25/2009 at 3:58 PM, in message

<4C00A07B0A6842468A3237500193BBB05B59D9@dnvmbx2.anadarko.com>, "Schneebeck Dulnoan, Kathy" <Kathy.SchneebeckDulnoan@anadarko.com> wrote:

Hi, Helen,

How many copies of the replacement pages do you need for these corrections?

Thanks!

Kathy Schneebeck Dulnoan Anadarko E&P Company, LP Kerr-McGee Oil & Gas Onshore LP

A wholly-owned subsidiary of Anadarko Petroleum Corporation

Direct: 720-929-6007

kathy.schneebeckdulnoan@anadarko.com

From: Helen Sadik-Macdonald [mailto:hmacdonald@utah.gov]

Sent: Wednesday, March 04, 2009 11:09 AM

To: Schneebeck Dulnoan, Kathy

Subject: RE: Application For Permit to Drill Sent Back for Revisions

Checking "Amended" is OK on Form 3. I may cross out and make changes on the original, will have to see what you send. Drill plan is most important. Thanks! hsm

Helen Sadik-Macdonald, CPG, PG Engineering Geologist Utah Div. of Oil, Gas & Mining PO Box 145801 Salt Lake City, UT 84114-5801

801/538-5357 Desk 801/359-3940 Fax

>>> On 3/3/2009 at 4:15 PM, in message

<4C00A07B0A6842468A3237500193BBB041931B@dnvmbx2.anadarko.com>, "Schneebeck Dulnoan, Kathy" <Kathy.SchneebeckDulnoan@anadarko.com> wrote:

Okee dokee. No worries. I'll send them back in via paper or e-mail. If I send in via paper, do you want a revised/updated Form 3 or not at all? I don't want to add to this confusion.....

Thank you for your patience. We're trying to get all of this straightened out and things will hopefully go more smoothly soon. Have a great evening!

Kathy Schneebeck Dulnoan Anadarko E&P Company, LP Kerr-McGee Oil & Gas Onshore LP

A wholly-owned subsidiary of Anadarko Petroleum Corporation

Direct: 720-929-6007

kathy.schneebeckdulnoan@anadarko.com

From: Helen Sadik-Macdonald [mailto:hmacdonald@utah.gov]

Sent: Tuesday, March 03, 2009 3:41 PM

To: Schneebeck Dulnoan, Kathy

Cc: Diana Mason

Subject: RE: Application For Permit to Drill Sent Back for Revisions

Kathy.

It was a thought, but won't work. An API number has already been assigned and a lot of data input has already occurred before I get the documents. Send a revised Drill Plan (e-mail is fine) with colored wellbore-cmt pages and I'll swap them out of the permit file. I'll cross out for changes on Form 3. It's much less hassle this way.

Regards,

Helen Sadik-Macdonald, CPG, PG Engineering Geologist Utah Div. of Oil, Gas & Mining PO Box 145801 Salt Lake City, UT 84114-5801

801/538-5357 Desk 801/359-3940 Fax

>>> On 3/3/2009 at 1:52 PM, in message

<4C00A07B0A6842468A3237500193BBB041929F@dnvmbx2.anadarko.com>, "Schneebeck Dulnoan, Kathy" <Kathy.SchneebeckDulnoan@anadarko.com> wrote:

Hi, Helen,

You are correct: 4000' of surface casing is not what is planned. We'd like to correct these and resubmit them. How would be best and easiest for you to do this? Can we resubmit them electronically even though they were submitted via paper initially?

Thank you.

Kathy Schneebeck Dulnoan Anadarko E&P Company, LP Kerr-McGee Oil & Gas Onshore LP

A wholly-owned subsidiary of Anadarko Petroleum Corporation

Direct: 720-929-6007

kathy.schneebeckdulnoan@anadarko.com

From: Helen Sadik-Macdonald [mailto:HMACDONALD@utah.gov]

Sent: Tuesday, March 03, 2009 1:45 PM

To: Schneebeck Dulnoan, Kathy

Cc: Mondragon, Mary

Subject: RE: Application For Permit to Drill Sent Back for Revisions

Kathy and Mary.

I have 3 hard copy APDs for

NBU 1022-25G2S

NBU 1022-25G3S

NBU 1022-25G4S

submitted by Kevin in November. Each has 4000' of surface csg. Is this what is planned? I recall, others like these were changed to around 2000' surface csg. Please advise. Thanks. hsm

Helen Sadik-Macdonald, CPG, PG Engineering Geologist Utah Div. of Oil, Gas & Mining PO Box 145801 Salt Lake City, UT 84114-5801

801/538-5357 Desk 801/359-3940 Fax

>>> On 3/3/2009 at 12:52 PM, in message

<4C00A07B0A6842468A3237500193BBB0419257@dnvmbx2.anadarko.com>,

"Schneebeck Dulnoan, Kathy" <Kathy.SchneebeckDulnoan@anadarko.com> wrote:

Hi, Helen,

I'll get onto fixing these 6 shortly. Sorry for the issues.

Thanks!

Kathy Schneebeck Dulnoan
Anadarko E&P Company, LP
Kerr-McGee Oil & Gas Onshore LP
A wholly-owned subsidiary of Anadarko Petroleum Corporation
Direct: 720-929-6007
kathy.schneebeckdulnoan@anadarko.com

----Original Message-----

From: hmacdonald@utah.gov [mailto:hmacdonald@utah.gov]

Sent: Tuesday, March 03, 2009 12:15 PM

To: Schneebeck Dulnoan, Kathy

Cc: Mondragon, Mary

Subject: Application For Permit to Drill Sent Back for Revisions

APD Number: 1157

Well Name: NBU 1022-11L3S

Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

There are 6 of these to revise for blanks on Form 3, csg, mud wt, cmt, drill plan.

#### STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

AMENDED REPORT X
(highlight changes)

NBU 1022-25G3S UDOGM Form 3 Repalcement.xls (ST) APD

								(99	
		APPLICATION	N FOR P	ERMIT TO	DRIL	L	5. MINERAL LEASE ML 22447		JRFACE: State
1A. TYPE OF WO	RK: DI	RILL X R	EENTER	DEEPEN			N/A	TTEE OR TRIBE NA	
B. TYPE OF WEL	L: OIL	GAS X	OTHER	SINGL	E ZONE	MULTIPLE ZONE X	8. UNIT or CA AGR 891008900		
2. NAME OF OPE						hand Dalama	9. WELL NAME and		
3. ADDRESS OF C		as Onshore, I	<u>.P</u>	Ki	atny Sc	hneebeck Dulnoan PHONE NUMBER:	NBU 1022 10. FIELD AND PO		<del> </del>
PO Box	173779	<b>Denver</b>	CC	E ZIP		720-929-6007	Natural Butt	•	
4. LOCATION OF	WELL (FOOTAGES	. 4201-	3X 3'	9,92232			11. QTR/QTR, SEC MERIDIAN:	TION, TOWNSHIP, F	RANGE,
AT SURFACE	4 7051 5			39.922275		-109.383517 NAD	1	T 10S R	22E
AT PROPOSI	ED PRODUCING Z しろそ9	ONE: 2,250' F	FNL 2,065' FEI かの24 Y	_ SW/4 NE ろり,920	E/4 Se 973	c. 25 T10S R22E ,-109.385505	S.L.B.& M.		
	MILES AND DIREC	CTION FROM NEARES	T TOWN OR POST	OFFICE:			12. COUNTY:		STATE
	· · · · · ·	35.3 miles south		<del>' </del>			Uintah		JTAH
2,065		ERTY OR LEASE LINE	(FEET)	16. NUMBER 640	OF ACRE	S IN LEASE;	17. NUMBER OF ACRES Unit well	S ASSIGNED TO TH	IS WELL:
		(DRILLING, COMPLET	ED, OR	19. PROPOS	ED DEPTI	<del>!</del> :	20. BOND DESCRIPTIO	iN:	
±350'	) ON THIS LEASE (	(CEE!)		7,744	' N	<b>I</b> D	Utah Statewide	Bond: 220135	42
21. ELEVATIONS	(SHOW WHETHER	R DF, RT, GR, ETC.):		22. APPROX	IMATE DA	TE WORK WILL START:	23. ESTIMATED DURAT	ION:	
	5,103 ' Ungra	aded Ground Lev	el	April 27	7, 2009		10 days		
24.			PROPOS	SED CASING	AND C	EMENTING PROGRAM			
SIZE OF HOLE	CASING SIZI	E, GRADE, AND WEIG	HT PER FOOT	SETTING DE	≣PTH	CEMENT TYPE,	QUANTITY, YIELD, AND	SLURRY WEIGHT	
12.25"	9.625"	J-55	36#	1,450 ' (l	MD)	Premium Cement	215	1.18	15.60
						Premium Cement	50	1.18	15.60
7.875"	4.5"	I-80	11.6#	7,744 ' (1	MD)	Premium Lite II	280	3.38	11.00
					<u>′</u>	50/50 Poz G	1,180	1.31	14.30
				<del> </del>	V-1				<del></del>
25.	<u> </u>			ATT	rachmi	 Ents			
	LOWING ARE ATT	ACHED IN ACCORDAN	ICE WITH THE UTA	AH OIL AND GAS	CONSERV	ATION GENERAL RULES:	<del></del>		<del> </del>
X WELL PLAT	OR MAP PREPAR	RED BY LICENSED SUI	RVEYOR OR ENGI	NEER	X	COMPLETE DRILLING PLAN			
X EVIDENCE	OF DIVISION OF W	VATER RIGHTS APPRO	OVAL FOR USE OF	WATER		FORM 5, IF OPERATOR IS PER	RSON OR COMPANY OTH	IER THAN THE LEA	SE OWNER
					1		thy.schneebeckdul	_	ko.com
NAME (PLEASE P	RINT) Kath	y Schneebeck [	Dulnoan		·	72 TITLE Staff Regulator	?0-929-6007 - office v Analvst	!	
TO HOLE (I LLE TOL)							<b>,</b> , <b>,</b>		
SIGNATURE	Kaik	y Schnebee.	t Dulnear	<del></del>		DATE April 7, 2009			<del></del>
(This space for State	te use only)			****	Ut	proved by the ah Division of	RE	CEIVE	D
		112~117	<b>H</b> alido		Oil,	Gas and Mining	AF	PR 0 8 200	9
API NUMBER	R ASSIGNED:	43047	- <b>1</b> 0.143		APF A <b>te:</b> 6	PROVAL:	$\wedge$	OIL, GAS & M	-
(11/2001)				D.		E (T) All	T) DIV. OI	OIL, GITO WIN	



# State of Utah

#### DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER Executive Director

Division of Oil, Gas and Mining. April 15, 2009

JOHN R. BAZA

Division Director

Kerr-McGee Oil & Gas Onshore, LP P O Box 173779 Denver, CO 80202-3779

Re:

NBU 1022-25G3S Well, 1765' FNL, 1482' FEL, SW NE, Sec. 25, T. 10 South,

R. 22 East, Bottom Location 2250' FNL, 2065' FEL, SW NE, Sec. 25, T. 10 South,

R. 22 East, Uintah County, Utah

#### Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann.§ 40-6-1 et seq., Utah Administrative Code R649-3-1 et seq., and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-047-40443.

Sincerely,

Gil Hunt

Associate Director

pab **Enclosures** 

cc:

**Uintah County Assessor** 

SITLA

Bureau of Land Management, Vernal Office



Operator:		<u>Ker</u>	Kerr-McGee Oil & Gas Onshore, LP					
Well Name & Numl	ber	NB	U 1022-25G3S					
API Number:		43-0	43-047-40443					
Lease:		ML	22447					
Location:	SW NE	Sec. 25	T. 10 South	<b>R.</b> 22 East				
<b>Bottom Location:</b>	SW NE	Sec. 25	<b>T.</b> 10 South	<b>R.</b> 22 East				

### **Conditions of Approval**

#### 1. General

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

## 2. Notification Requirements

The operator is required to notify the Division of Oil, Gas and Mining of the following action during drilling of this well:

- 24 hours prior to cementing or testing casing contact Dan Jarvis
- 24 hours prior to testing blowout prevention equipment contact Dan Jarvis
- 24 hours prior to spudding the well contact Carol Daniels
- Within 24 hours of any emergency changes made to the approved drilling program contact Dustin Doucet
- Prior to commencing operations to plug and abandon the well contact Dan Jarvis

The operator is required to get approval from the Division of Oil, Gas and Mining before performing any of the following actions during the drilling of this well:

- Plugging and abandonment or significant plug back of this well contact Dustin Doucet
- Any changes to the approved drilling plan contact Dustin Doucet

The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voice mail message if the person is not available to take the call):

Dan Jarvis at: (801) 538-5338 office (801) 942-0871 home
 Carol Daniels at: (801) 538-5284 office

• Dustin Doucet at: (801) 538-5281 office (801) 733-0983 home

# 3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

Page 2 43-047-40443 April 15, 2009

- 4. Compliance with the State of Utah Antiquities Act forbids disturbance of archeological, historical, or paleontological remains. Should archeological, historical or paleontological remains be encountered during your operations, you are required to immediately suspend all operations and immediately inform the Trust Lands Administration and the Division of State History of the discovery of such remains.
- 5. Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis. (Copy Attached)
- 6. In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.
- 7. In accordance with Order in Cause No. 190-5(b) dated October 28, 1982, the Operator shall comply with requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operator shall ensure that the surface and/or production casing is properly cemented over the entire oil shale interval as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the Division.

	STATE OF UTAH		FORM 9
	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MI		5.LEASE DESIGNATION AND SERIAL NUMBER: ST ML 22447
SUNDF	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for proposition-hole depth, reenter plu DRILL form for such proposals.	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES		
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 1022-25G3S		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		<b>9. API NUMBER:</b> 43047404430000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th S	treet, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6007 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1765 FNL 1482 FEL		COUNTY: UINTAH	
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: SWNE Section: 25	P, RANGE, MERIDIAN: Township: 10.0S Range: 22.0E Meridian:	S	STATE: UTAH
11. CHE	CK APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPORT,	OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	☐ ALTER CASING	CASING REPAIR
✓ NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	CHANGE WELL NAME
4/15/2010	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
_	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	☐ VENT OR FLARE	WATER DISPOSAL
☐ DRILLING REPORT	☐ WATER SHUTOFF	SI TA STATUS EXTENSION	✓ APD EXTENSION
Report Date:	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:
12 DESCRIBE PROPOSED OF CO	MPLETED OPERATIONS. Clearly show all pe	ortinent details including dates denths v	olumes etc
Kerr-McGee Oil & Ga extension to this A	as Onshore, L.P. (Kerr-McGee PD for the maximum time allowith any questions and/or con	e) respectfully requests an owed. Please contact the	Approved by the Utah Division of Oil, Gas and Mining
		D	ate: April 20, 2010
		В	y: Balyll
			30 TO SO TO
NAME (PLEASE PRINT)	PHONE NUMBER	R TITLE	
Danielle Piernot	720 929-6156	Regulatory Analyst	
<b>SIGNATURE</b> N/A		<b>DATE</b> 4/14/2010	



## The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices** 

# Request for Permit Extension Validation Well Number 43047404430000

**API:** 43047404430000 Well Name: NBU 1022-25G3S

Location: 1765 FNL 1482 FEL QTR SWNE SEC 25 TWNP 100S RNG 220E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

**Date Original Permit Issued:** 4/15/2009

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that requ

information as submitted in the previously approved application to drill, remains valid and does not vire revision. Following is a checklist of some items related to the application, which should be verified.
<ul> <li>If located on private land, has the ownership changed, if so, has the surface agreement been updated?</li> <li>Yes</li> <li>No</li> </ul>
• Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?  Yes No
• Has there been any unit or other agreements put in place that could affect the permitting or operatio of this proposed well?  Yes No
• Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?   Yes  No
• Has the approved source of water for drilling changed?   Yes  No
<ul> <li>Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?</li> <li>Yes</li> <li>No</li> </ul>
• Is bonding still in place, which covers this proposed well?   Yes  No Utah Division of Oil, Gas and Mining
nature: Danielle Piernot Date: 4/14/2010
Title: Regulatory Analyst Representing: KERR-MCGEE OIL & GAS ONSHOR April 20, 2010
$M \sim M M$

Sig

Sundry Number: 14196 API Well Number: 43047404430000

	FORM 9			
	<b>5.LEASE DESIGNATION AND SERIAL NUMBER:</b> ST ML 22447			
SUND	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:			
Do not use this form for propo bottom-hole depth, reenter plu DRILL form for such proposals	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES			
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 1022-25G3S			
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	9. API NUMBER: 43047404430000			
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th S	9. FIELD and POOL or WILDCAT: NATURAL BUTTES			
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1765 FNL 1482 FEL	COUNTY: UINTAH			
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: SWNE Section: 25	STATE: UTAH			
11. CHE	CK APPROPRIATE BOXES TO INDICATE N	IATURE OF NOTICE, REPORT	, OR OTHER DATA	
TYPE OF SUBMISSION	TYPE OF ACTION			
Kerr-McGee Oil & G extension to this A	CHANGE TO PREVIOUS PLANS  CHANGE WELL STATUS  DEEPEN  OPERATOR CHANGE  PRODUCTION START OR RESUME  REPERFORATE CURRENT FORMATION  TUBING REPAIR  WATER SHUTOFF	espectfully requests and ed. Please contact the nents. Thank you.	•	
NAME (PLEASE PRINT)	PHONE NUMBER	TITLE		
Andy Lytle SIGNATURE	720 929-6100	Regulatory Analyst  DATE		
N/A		4/7/2011		

Sundry Number: 14196 API Well Number: 43047404430000



#### The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices** 

## Request for Permit Extension Validation Well Number 43047404430000

**API:** 43047404430000 **Well Name:** NBU 1022-25G3S

Location: 1765 FNL 1482 FEL QTR SWNE SEC 25 TWNP 100S RNG 220E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

**Date Original Permit Issued:** 4/15/2009

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

	ated on private land, has t ted? 🔵 Yes 🌘 No	the ownership changed, if so, has the surface agreement been
	any wells been drilled in t requirements for this loc	the vicinity of the proposed well which would affect the spacing or cation? ( Yes ( No
	here been any unit or othe s proposed well?  Yes	er agreements put in place that could affect the permitting or operation $\widehat{oldsymbol{s}}$ No
	there been any changes to the proposed location?(	o the access route including ownership, or rightof- way, which could Yes 📵 No
• Has t	he approved source of wa	ter for drilling changed? 🔵 Yes 🌘 No
		changes to the surface location or access route which will require a discussed at the onsite evaluation? ( Yes ( No
• Is bo	nding still in place, which	covers this proposed well?
Signature:	Andy Lytle	<b>Date:</b> 4/7/2011

Title: Regulatory Analyst Representing: KERR-MCGEE OIL & GAS ONSHORE, L.P.



# State of Utah

#### DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA Division Director

May 9, 2012

Jenn Hawkins Anadarko Petroleum Corporation 1099 18th Street, Suite 1800 Denver, CO 80202 43 047 40443 NBU 1022-25435 105 22E 25

Re:

APDs Rescinded for Anadarko Petroleum Corporation

**Uintah County** 

Dear Ms. Hawkins:

Enclosed find the list of APDs that you requested to be rescinded. No drilling activity at these locations has been reported to the division. Therefore, approval to drill these wells is hereby rescinded, effective May 2, 2012.

A new APD must be filed with this office for approval <u>prior</u> to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely,

Diana Mason

**Environmental Scientist** 

and Helasu

cc: Well File

Bureau of Land Management, Vernal

SITLA, Ed Bonner



4304750055	NBU 753-32E	4304740374	NBU 705-26E
4304750683	NBU 634-12EX	4304750123	NBU 920-12N
4304740346	NBU 921-15N1S	4304750143	NBU 920-13J
4304740347	NBU 921-14M3S	4304750751	NBU 920-21G
4304740348	NBU 921-22A1S	4304750756	NBU 1022-35I1CS
4304750089	NBU 921-1503T	4304750757	NBU 1022-35I4BS
4304740441	NBU 1022-25G2S	4304750758	NBU 1022-35J1CS
4304740442	NBU 1022-25G4S	4304750759	NBU 1022-35J4CS
74304740443	NBU 1022-25G3S	4304740380	NBU 920-13D
4304750852	FEDERAL 920-230	4304750155	FEDERAL 920-240
4304751026	NBU 921-12K	4304750769	NBU 1022-35K4CS
4304751027	NBU 921-12L	4304750770	NBU 1022-35N1CS
4304751028	NBU 921-12M	4304750771	NBU 1022-3501BS
4304751039	NBU 920-210	4304750772	NBU 1022-3501CS
4304750697	NBU 687-30E	4304750791	NBU 921-100
4304750811	NBU 699-25E	4304750792	NBU 921-10M
4304740153	NBU 1022-05JT	4304740439	NBU 1022-24P2S
4304740135	NBU 921-15MT	4304740440	NBU 1022-24P4S
4304750468	NBU 738-30E		
4304739369	NBU 922-180		
4304739372	NBU 922-20E		
4304740184	NBU 921-30FT		
4304740217	NBU 759-29E		
4304740218	NBU 737-30E		
4304750461	NBU 1022-2402S		
4304740267	NBU 704-26E		
4304740240	NBU 702-26E		
4304740241	NBU 703-26E		
4304750578	NBU 920-14B		
4304750579	NBU 920-14A		
4304740268	NBU 701-26E		
4304750627	NBU 920-21P		
4304750628	NBU 920-21N		
4304750682	NBU 921-12J		
4304750695	NBU 921-12N		
4304750111	NBU 921-11GT		
4304750112	NBU 921-11HT		

4304750118

NBU 740-30E